

Illinois U Library

# COMMERCE

M A G A Z I N E

Civilian Defense Planning . . . . .

Labor's Finishing School . . . . .

France: Economic Convalescent . .

Ask Them To Buy! . . . . .

Materials Handling Savings . . . .

AUGUST, 1950

35 CENTS





*The Goss Headliner installation  
in the plant of the Atlanta  
Journal, Atlanta, Ga.*



## *Precision Shafting\**

THE Steel Supply Company furnishes the precision shafting that helps make Goss printing presses the standard of perfection in Press rooms and print shops everywhere.

You can depend on the Steel Supply Company for the finest of precision shafting; shafting recommended by specialists for your particular needs and handled by specialists who guarantee that every length will be delivered to you straight and concentric. Our stock of ground and polished and turned, ground and polished shafting is large because we specialize in precision shafting.

Write today for your FREE copy of our two-color folder "Call A Specialist". Four short pages designed especially for busy purchasing agents, containing the technical data you need for trouble-free buying of steel shafting.

\*Also a complete inventory of Cold Finished Bars in rounds, squares, flats and hexagons. Drill Rod in 3 and 12 foot lengths.

CALL  
A SPECIALIST!



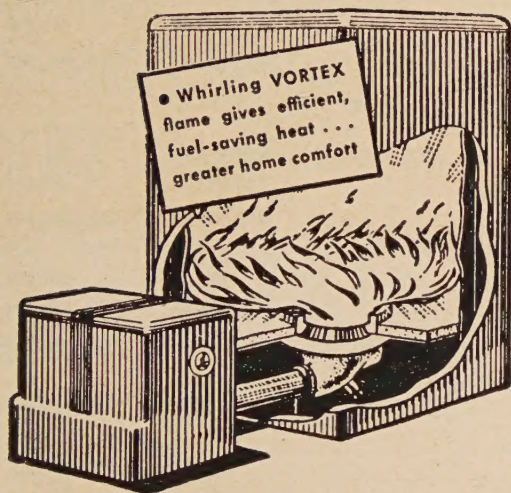
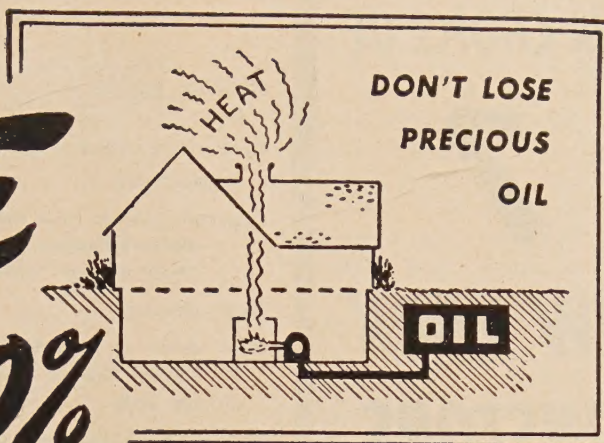
**THE STEEL SUPPLY COMPANY**

26 NORTH ABERDEEN STREET • CHICAGO 7, ILLINOIS

Telephone MO nroe 6-421



# SAVE UP TO 30% ON YOUR FUEL



## with Iron Fireman Vortex Oil Burner

The Iron Fireman VORTEX burner saves oil by cutting down heat losses. Its whirling, bowl-shaped flame releases rich, radiant heat right *at grate line level*. Heat doesn't escape unused. The extra heat made available by the Iron Fireman VORTEX oil burner reduces your fuel bills as much as 30%. Enjoy top comfort with full economy!

**No Down Payment • Three Years to Pay**



Call your **IRON FIREMAN**  
Dealer for **FREE** heating survey!

## IRON FIREMAN MFG. CO.

1101 W. Adams St.

MOonroe 6-8000



YOUR CHOICE OF

7

**NEW YORK  
NONSTOPS**

**ON UNITED'S DC-6  
MAINLINER 300s**



**LEAVE AT 7 a. m., 8 a. m.,  
11 a. m., 4 p. m., 5 p. m., 8  
p. m., or 1:50 a. m.** Reach  
New York in just 2 hrs. 55 min.  
Delicious full-course meals and  
finest service aloft.

**FASTEST, FINEST TO PHILA-  
DELPHIA!** Now only 2 $\frac{2}{3}$  hrs.  
nonstop on DC-6 Mainliner 300s  
— the *only* nonstop flights to  
Philadelphia! Leave at 5:45 p. m.,  
arrive 9:25 p. m. Two other  
DC-6 flights daily.

**COST IS LOWER THAN RAIL!**  
Based on fares alone, you save  
\$4.54 one way over 1st-class rail  
with lower berth to New York,  
\$3.49 one way to Philadelphia.

Flights operate on Standard time.

**UNITED AIR LINES**

Monroe and Wabash (Palmer  
House Corner), Stevens Hotel  
Lobby and Midway Airport. Call  
FRanklin 2-4900 or an author-  
ized travel agent.

## STATISTICS OF

# CHICAGO BUSINESS

	June, 1950	May, 1950	June, 1949
Building permits .....	1,240	1,083	
Cost .....	\$29,582,800	\$18,585,700	\$17,095,500
Real estate transfers .....	8,061	7,617	5,500
Consideration .....	\$6,497,697	\$6,782,492	\$5,456,300
Department store sales index .....	220.6*	224.6	220.0
(Federal Reserve Board)			
(Daily average 1935-39 = 100)			
Bank clearings .....	\$3,564,911,479	\$3,371,014,768	\$3,167,097,000
Bank debits to individual accounts:			
7th Federal Reserve District .....	\$18,287,710,000	\$16,536,412,000	\$15,643,806,000
Chicago only .....	\$9,151,225,000	\$8,256,335,000	\$8,399,412,000
Midwest Stock Exchange transactions:			
Number of shares traded .....	1,615,000	1,505,000	479,000
Market value of shares traded .....	\$50,144,473	\$43,105,332	\$10,877,000
Railway express shipments,			
Chicago area .....	1,041,888	1,037,326	1,213,000
Air express shipments, Chicago area .....	59,623	62,339	46,000
L.C.L. merchandise cars .....	21,565	21,790	25,000
Electric power production, kwh. ....	1,039,506,000	1,028,995,000	940,590,000
Revenue passengers carried by Chicago Transit Authority lines:			
Surface division .....	53,567,507	56,291,689	61,292,000
Rapid Transit division .....	12,128,456	12,533,274	13,562,000
Postal receipts .....	\$9,336,459	\$9,352,455	\$8,906,000
Air passengers:			
Arrivals .....	172,124	159,155	144,000
Departures .....	178,641	165,214	150,000
Consumers' Price Index (1935-39 = 100) ..	176.4	175.3	170.0
Livestock slaughtered under federal inspection .....	454,918	474,069	460,000
Families on relief rolls:			
Cook county .....	29,642	30,407	24,000
Other Illinois counties .....	19,003	21,013	18,000

\*Preliminary figure.

## SEPTEMBER, 1950, TAX CALENDAR

Date Due	Tax	Returnable to
1	Second installment of 1949 Real Estate taxes becomes delinquent on this date and subject to penalty of 1% per month thereafter.	County Collector
15	If total O.A.B. taxes (employer and employee) plus income tax withheld in previous month exceeds \$100, pay amount to	Authorized Depositor
15	Illinois Retailers' Occupation Tax return and payment for month of August	Director of Revenue
15	Third quarterly installment of 1949 Federal Income Tax by Corporations and Fiduciaries	Collector of Internal Revenue
15	Payment of one-quarter of 1950 estimated tax found due March 15, or one-third of the balance of 1950 estimated tax found due June 15. (Those required to file declaration for first time, or making revised declaration, pay one-half of the balance of 1950 estimated tax)	Collector of Internal Revenue
30	Federal Excise Tax return and payment due for August, 1950	Collector of Internal Revenue



# COMMERCE

## MAGAZINE

PUBLISHED SINCE 1904

BY THE CHICAGO ASSOCIATION OF COMMERCE AND INDUSTRY  
1 NORTH LA SALLE STREET, CHICAGO 2 • FRANKLIN 2-7700

OL. 47

NO. 7

AUGUST, 1950

### CONTENTS ☆

Materials Handling:	
Savings Frontier! .....	By Betty Savesky 13
Civilian Defense Planning Today .....	By John L. Kent 15
France: Economic	
Convalescent .....	By John Clark Kimball 16
MOODS . . . And Why We	
Have Them! .....	By Dr. Donald A. Laird 18
Labor Bosses'	
Finishing School .....	By Eleanor Vaughan 19
For More Sales:	
Ask Them To Buy! .....	By Donald J. Gould 21

### REGULAR FEATURES ☆

Statistics of Chicago Business .....	2
The Editor's Page .....	7
Here, There and Everywhere .....	8
Trends in Finance and Business .....	10
Invest—In the Middle West .....	31
Industrial Developments in the Chicago Area .....	35
Transportation and Traffic .....	39
New Products .....	42
Stop Me—If .....	48

Alan Sturdy, Editor

Lewis A. Riley, Associate Editor

L. B. Murdock, Advertising Manager

Published monthly by The Chicago Association of Commerce and Industry, with offices at James and North Cook Streets, Barrington, Ill. and 1 North LaSalle Street, Chicago 2, Ill. Subscription rates: domestic \$3.50 a year; three years \$7.50; foreign \$4.50 a year; single copies 35 cents. Reentered as second class matter June 2, 1948, at the Post Office at Barrington, Ill., under the act of March 3, 1879. Copyright 1950, by the Chicago Association of Commerce and Industry. Reprint permission on request.

Executive and Editorial Offices: 1 North LaSalle St., Chicago. Telephone: Editorial, Franklin 2-7717; Advertising, Franklin 2-7711. Neither Commerce nor The Chicago Association of Commerce and Industry sponsors or is committed to the views expressed by authors. Cover design copyrighted.

POSTMASTERS ATTENTION: Copies returned under labels Form 3579 should be sent to 1 North LaSalle Street, Chicago 2, Illinois.

## In This Issue . . .

Among many problems confronting the United States as a result of its second shooting war within a decade is that of defending its civilians against the grim potentialities of atomic warfare. The problem is big, complex and colossal difficult. This month COMMERCE presents a review of current civilian defense planning (page 15) written by a regular Washington contributor, John L. Kent. Mr. Kent's article, gathered from a number of federal planning agencies, provides an insight into some of the difficult aspects of planning for a wartime disaster that every American hopes will never occur.

Written some weeks before the Korean War began, John Clark Kimball's review of France's economic recovery drive (page 16) is particularly interesting in light of subsequent international developments. Mr. Kimball returned recently from an extended visit to the nation that stands as "Europe's keystone." That he was a careful observer during his sojourn is indicated by his penetrating commentary upon that nation's efforts to lift itself from the economic pit into which it was drawn by World War II.

As pointed out elsewhere in this issue, industry's postwar drive for greater productivity may well be an important factor in the nation's preparedness for war. The adoption of better materials handling methods has been one phase of this campaign for increased output-per-manhour. But, as Betty Savesky notes in her article (page 13), industry is still far behind in its adoption of time saving handling methods, which may be its last major frontier for savings.

Everybody has bad moods. But with some folks, these bad moods last longer and are harder to shake off. Just why we have bad (and good) moods — and they have absolutely nothing to do with what we ate for lunch! — is explained (page 18) by a well-known psychologist, Dr. Donald A. Laird. The article is excerpted from the author's new book, "Practical Business Psychology," scheduled for publication later this year.



# IN CHICAGO AND NORTHERN ILLINOIS...

## Industries have Room to Grow

**D**ecentralization and room to grow are two factors that have become important in considering plant location these days. In the Chicago and Northern Illinois area, you'll find the world's greatest facilities for both.

Here, in an area of 10,000 square miles, there are a multitude of desirable plant sites within a minute's or an hour's access to the greatest industrial center of the United States . . . with all its tremendous transportation, marketing, research, medical, cultural, residential and educational facilities. And this great area offers supplementary industrial advantages that cannot be equalled elsewhere in the world.

Whether the requirements of your business are those of a characteristically compact industrial area or those to be found in smaller but easily accessible cities beyond, the Chicago and Northern Illinois area offers the wide diversity to include the type of space you need.

A letter describing your requirements will bring you a careful analysis of this area's advantages as they apply to *your* business. Or if your business is one of the few that, we feel, requires facilities not available in this territory, we'll tell you that, too.

Just write us. We of course keep all such inquiries confidential.



**Industries in the Chicago Area have these outstanding advantages:** Railroad Center of the United States • World Airport • Inland Waterways • Geographical Center of U. S. Population • Great Financial Center • The "Great Central Market" • Food Producing and Processing Center • Leader in Iron and Steel Manufacturing • Good Labor Relations Record • More Than 2,500,000 Kilowatts of Power • Tremendous Coal Reserves • Good Government • Good Living • Good Services for Tax Dollars.

### TERRITORIAL INFORMATION DEPARTMENT

Marquette Building—140 South Dearborn Street, Chicago 3, Illinois—Phone RAndolph 6-1617

COMMONWEALTH EDISON COMPANY • PUBLIC SERVICE COMPANY OF NORTHERN ILLINOIS  
WESTERN UNITED GAS AND ELECTRIC COMPANY • ILLINOIS NORTHERN UTILITIES COMPANY



# The Editor's Page

## Korea and Controls

SINCE the United States entered the war in Korea the nation has been attempting to determine the degree of economic mobilization required for the war and for the enlarged defense program growing from it. The planning done by Washington agencies since the cessation of shooting five years ago was based on the assumption of a global war which would require instantaneous and total mobilization. Until the present the only specific indication of what will be needed in the lesser war is the \$10 billion appropriation requested of Congress by the President. Whether that sum is adequate in view of the gravity of the international situation in general and the Korean war in particular is a matter for military judgment.

If the \$10 billion is a proper appraisal of our need, the public's recent panicky buying, based on memories of World War II, is unjustified. There is, in fact, danger that reference to what happened in World War II may cause much harm.

Immediately prior to the outbreak of war in Korea, the nation's gross national product was running at an annual rate of approximately \$265 billion. Of this output, Government purchases of goods and services were absorbing between \$42 and \$43 billion, or 16 per cent. An additional \$10 billion would bring the percentage to slightly less than 20 per cent. The remaining 80 per cent of the present all time high production rates would constitute a civilian supply far greater than anything known prior to World War I. Compared with conditions at the height of military production during World War II, it would mean an almost lush civilian standard of living. In 1944, at the very peak of government procurement, gross national product was running at an annual rate of \$214 billion. Of this, the government's purchases of goods and services took \$96.5 billion, or 45 per cent.

Senator Joseph C. O'Mahoney, chairman of the Joint Committee on the Economic Report, approaching the problem from a somewhat different viewpoint, has concluded in a memorandum to his committee that there is sufficient slack in the economy for it quickly to expand another five per cent with the existing labor force and plant capacity. According to the Senator, "Gross national product could rise from levels of \$260 billion to \$280 or \$285 billion . . ."

These figures indicate that unless the government's appraisal of the war need is altered radically a complete shutdown of all but the most essential civilian production, such as occurred in World War II, is not in the offing.

Some shortages and delays can be expected and there certainly cannot be a "business as usual" attitude. But total economic controls such as have been proposed are hardly necessary. It is, in fact, debatable whether Congress should grant them even on a stand-

by basis so long as the military and administrative branches of government continue to feel that the additional demand to be made on the economy is not more than \$10 billion.

## ■ Fiscal Unpreparedness

THE outbreak of war in Korea has accentuated the already grave fiscal position of the government. Without new taxes, whatever additional costs the war imposes must be added to the deficit, which was running in excess of \$3 billion a year.

President Truman and his congressional leaders are striving now to bridge part of the gap by proposing a hasty increase in both corporate and personal income tax rates. Earlier plans for a reduction in excise tax rates, of course, are abandoned.

Few people, if any, will disagree with the necessity for increased taxes to finance the war. With the national debt standing at more than \$250 billion it would be inviting calamitous inflation to borrow over half of the cost of the present war as was done in World War II.

The problem which the President and his advisors have not tackled, however, is the cutting of non-defense spending. By inference they are saying that we can afford pork and war too. This is a continuation of the attitude that has prevailed for years. Even before Korea, Congress, which dearly wanted to reduce excise taxes by a billion dollars, could not seem to find any offsetting savings in a \$42.5 billion budget. The time for such poor vision is past. If to fight a "police action" in Korea it is necessary to reimpose tax rates of 1945, when we were engaged in a global war, it is also time to end all political spending. We cannot afford to pour a half billion dollars into buying surplus potatoes that cannot even be given away, or to accumulate many years supply of powdered eggs. We cannot afford to carry out expensive reclamation projects while we are at the same time buying up agricultural "overproduction" from land already in use. We cannot afford to print 10 tax forms for every taxpayer and then rent space to store the surplus, nor to print 62,000,000 publications a year for free distribution, including such gems as "How To Control Vagrant Cats."

Such illustrations could be recited almost endlessly. Investigation after investigation by congressional committees and others have filled the files with documented evidence of both unwise spending and rank waste. The deficit in the budget despite onerous taxation demonstrates that the country was unable to afford such waste before Korea. To continue it now would represent the acme of irresponsibility.

*Alan Sturdy*



## MATERIAL HANDLING

A NUMBER ONE

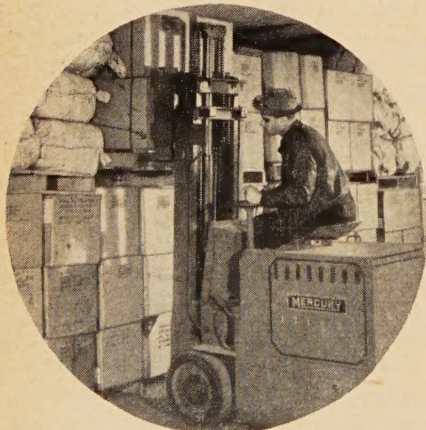
PROFIT

FACTOR

Cost accounting has *proved* that material handling, while adding nothing to product value, frequently accounts for 10 to 20% of the manufacturing dollar.

Today's labor and material costs emphasize the importance of reducing this expense through improved material handling methods — thus maintaining or improving profit margins.

Mercury's 36 years' experience in the material handling field is available to you at no cost or obligation. For consultation on your particular handling problem, ask a Mercury Sales Engineer



THE MERCURY MANUFACTURING CO.

4162 South Halsted Street  
Chicago 9, Illinois



**MERCURY**

TRACTORS • TRAILERS • LIFT TRUCKS

# HERE-THERE and EVERYWHERE

• **Big Steel Ups Capacity** — The United States Steel Corporation is accelerating a major improvement program which will increase its steelmaking capacity by 1,600,000 ingot tons at the Pittsburgh and Chicago district plants of Carnegie-Illinois Steel Corporation, its principal steel-making subsidiary. The big expansion program, announced in the early weeks of the war emergency, is expected to result in an increase of 1,215,000 tons in Big Steel's annual capacity within a year. The remainder of the program, now in the engineering stage, will make an additional 445,000 tons of annual productive ingot capacity available by the Fall of 1951.

• **Aircraft "Anchor"**—A steel tube, 28 inches long, filled with rocket propellant, may serve as an "anchor" for small aircraft and gliders when experiments by engineers of the Air Materiel Command are completed. Just before touching ground, the pilot pushes a button in the cockpit that discharges the rocket propellant in the tube, mounted near the tail assembly. The tube anchor is driven 18 inches into the ground and connected to it is a 200-foot stainless steel ribbon wound on a hydraulic brake that absorbs the braking energy and thus permits a smooth, easy stop.

• **Low Income Buyers** — More than a third of all new home buyers using FHA-insured financing last year were families with incomes of less than \$300 monthly, according to a Federal Housing Administration report. These families bought houses with an average FHA valuation of about \$7,000 and the monthly mortgage payment runs around \$50. The FHA new home buyers payments in 1949 averaged \$41.54 for incomes under \$200; \$55.50 for \$300 incomes; \$69.12 for \$500 in-

comes, and \$98.43 for incomes of \$1,000 or more.

• **Peace In Old Age** — Only one person in four of those 65 years of age in this country does not have to worry about money matters, according to a stripfilm prepared by the University of Illinois to explain the workings of life insurance in present-day living. Despite heavy publicity aimed at the necessity of adequate life insurance, the film points out that this overall campaign has still not been able to prevent three out of four people from going into old age in financial trouble.

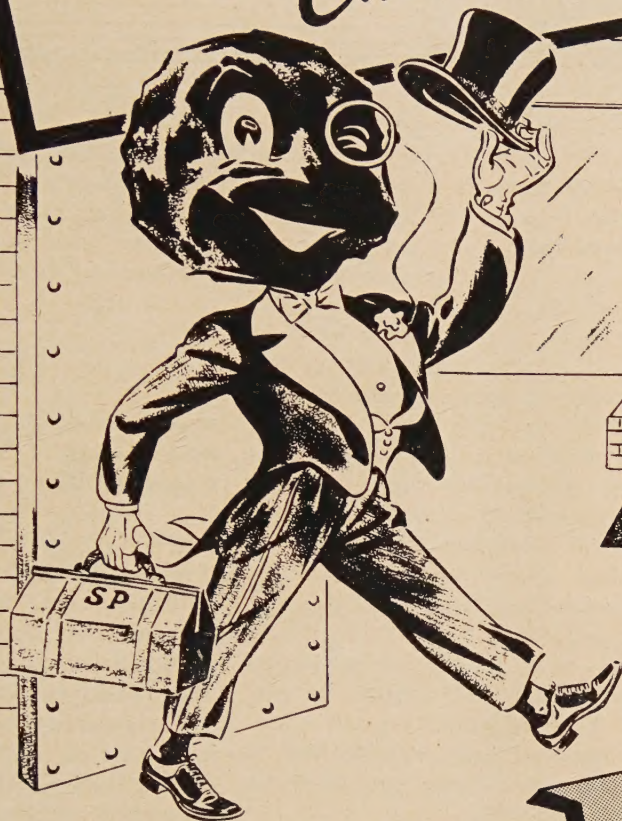
• **Waterway Traffic Up** — Traffic on the Illinois Waterway in 1949 amounted to 12,895,114 tons, the greatest volume in the history of the waterway, it has been disclosed by the Corps of Army Engineers which maintains and operates the waterway which connects the Mississippi River and the Great Lakes. The 1949 tonnage on the waterway represents an increase of about seven per cent over the 1948 level, the previous high year, despite a reduction of more than a million tons in coal shipments due to last year's mine shut-downs. This decline was more than made up for by substantial gains in the tonnage of petroleum products, grain, sand, gravel and stone.

• **New Rodeo Center?** — Chicago as a future center for big time rodeo competition is forecast by the sponsors of the International Championship Rodeo and Ranch Exposition, to be held October 6 through 15 at the city's International Amphitheatre. The exposition will feature an annual round-up in Chicago scheduled to be "on a par with the historic Frontier Days at Cheyenne, Wyoming, and outstand-

(Continued on page 30)



FOR REFINED COAL-  
*Call a Specialist!*



When your steam production demands the stepped up efficiency and value of refined coal, a *specialist*—Peabody—can logically assure you of the front rank service you want.

- Prompt, competent attention to your supply is a part of it. More is in a choice of Central and Southern Illinois (5th and 6th veins) refined coals with long records of profitable use in almost all varieties of boiler plants.
- One of them is RIGHT for your testing under today's changed conditions and needs. Combustion engineer consultation if desired.

## PEABODY COAL

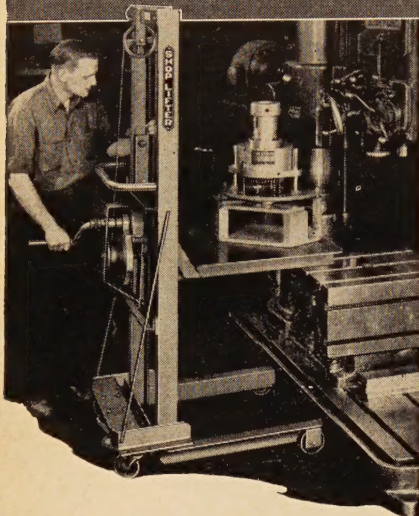
COMPANY, 231 South La Salle Street, Chicago 4, Ill.

♦ *Established 1883* ♦

*Sales Offices* SPRINGFIELD • ST. LOUIS • DES MOINES • MINNEAPOLIS • CINCINNATI



## Every shop needs a SHOPLIFTER



● One man can safely handle heavy loads up to 500 pounds with the aid of an Economy SHOPLIFTER. It's the ideal lifter for handling dies and heavy shop equipment, for use as an adjustable work table, loading street trucks, stacking drums, boxes and many other products.

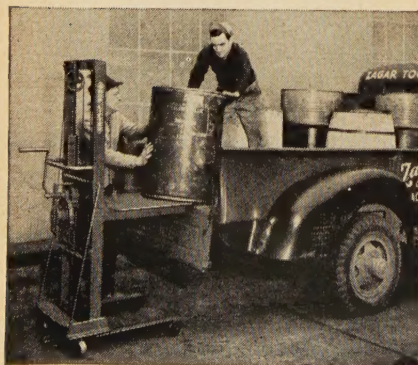
The SHOPLIFTER is made as compact as possible so that it can be used where space is at a premium. Clears ordinary doorways with ease, can be taken down narrow aisles and along side other machinery. Shop men like the Economy SHOPLIFTER because back-breaking manual lifting is eliminated, accidents are greatly reduced, and valuable production time is saved.

24 inch square steel plate platform has lift of 54 inches above floor. Overall height 72 inches, capacity 500 pounds. Price of complete machine \$152.40 f.o.b. Chicago. Foot operated floor lock \$9.60 extra. Heavier lifter models also available, capacities up to 5000 pounds.

*Write for details*

**ECONOMY ENGINEERING COMPANY**

4511 W. Lake Street  
CHICAGO 24, ILLINOIS



## Trends in FINANCE and BUSINESS

### Productivity Drive May Now Face Its Crucial Test

Manpower is to be one of the most difficult of many problems confronting business management as a result of the war emergency. A quick look at comparative employment levels at the beginning of shooting wars in 1941 and 1950 explains why. In 1941, there were some 8,000,000 unemployed persons in the United States, providing a great untapped source of workmen who could be absorbed almost immediately into war production. In mid-1950, there were, according to government estimates, more people at work in this country than ever before in history. Unemployment, after reaching a postwar high of 4,700,000 in February, had been cut back to around 3,000,000.

The immediate result is that almost every man and woman now required for military or war production duty must be extracted from a civilian job. There is virtually no reserve pool of unemployed workmen from which to draw.

Reports gathered in the early weeks of the war crisis by the Department of Labor indicate that the manpower pinch had already begun well before June 23. During the first week of June, total U. S. employment was placed at 61,500,000, a mere hair's breadth under the former post-war peak of 61,600,000 in July, 1948. Washington guesses are that July employment substantially exceeded June levels.

The manpower pinch thus appears certain to become a critical squeeze almost immediately, and the circumstances underscore the importance of industry's broadscale drive for increased productivity since the last war. With distinctly fewer men likely to be available to

do a specific job, the extent which better machinery, better planning, better materials handling and the like can increase output per manhour is about to be put to its crucial test.

« « » »

The war-produced manpower squeeze makes more than passing interest a survey

just completed by the National Industrial Conference Board which indicates that industry generally has increased its productivity quite substantially over prewar levels. The board asked 133 manufacturing companies whether they had succeeded in reaching their postwar productivity goals. Most of the companies replied in the affirmative, adding that the principal contributing factors had been new plant facilities, competitive markets and closer labor-management cooperation.

Only seven of the 133 manufacturers reported that they had failed to reach their productivity goals. The reasons they cited were union resistance, slowdowns, absenteeism and lack of employee interest — all of which deterrents, incidentally, should certainly disappear in a national emergency. None of the unsuccessful firms complained of new machines being unable to speed up production.

The auto equipment and electrical appliance and supply companies showed the greatest gain in output per manhour among the companies surveyed. One auto equipment maker reported that a third of his 72 per cent higher productivity since 1939 is attributable to labor effort. The remainder has been due to "investment, organization, prod-

(Continued on page 28)



# *Yours* FOR THE *Asking!*

## THE BUYERS' GUIDE AND INDUSTRIAL DIRECTORY of

# *Chicago*

PUBLISHED BY  
The Chicago Association  
of  
Commerce and Industry

Your copy of the latest edition of this Guide to Sources of Supply in the CHICAGO MARKET will be mailed FREE if you write at once on your letterhead or mail the coupon below.

### CHICAGO— America's Most Diversified Source of Supply

If you come to Chicago to buy or if you order by mail, you need this latest directory of manufacturers and wholesalers in Chicago. Act at once. The supply is limited. Mail this coupon NOW.



YOUR COPY  
OF THIS YEAR'S  
EDITION IS  
READY—SEND  
FOR IT NOW



#### Buyers Guide Division

The Chicago Association of Commerce and Industry  
One North La Salle St., Chicago 2, Ill.

Please send me free of charge a copy of the  
Buyers Guide and Industrial Directory of Chicago.

NAME \_\_\_\_\_

FIRM \_\_\_\_\_

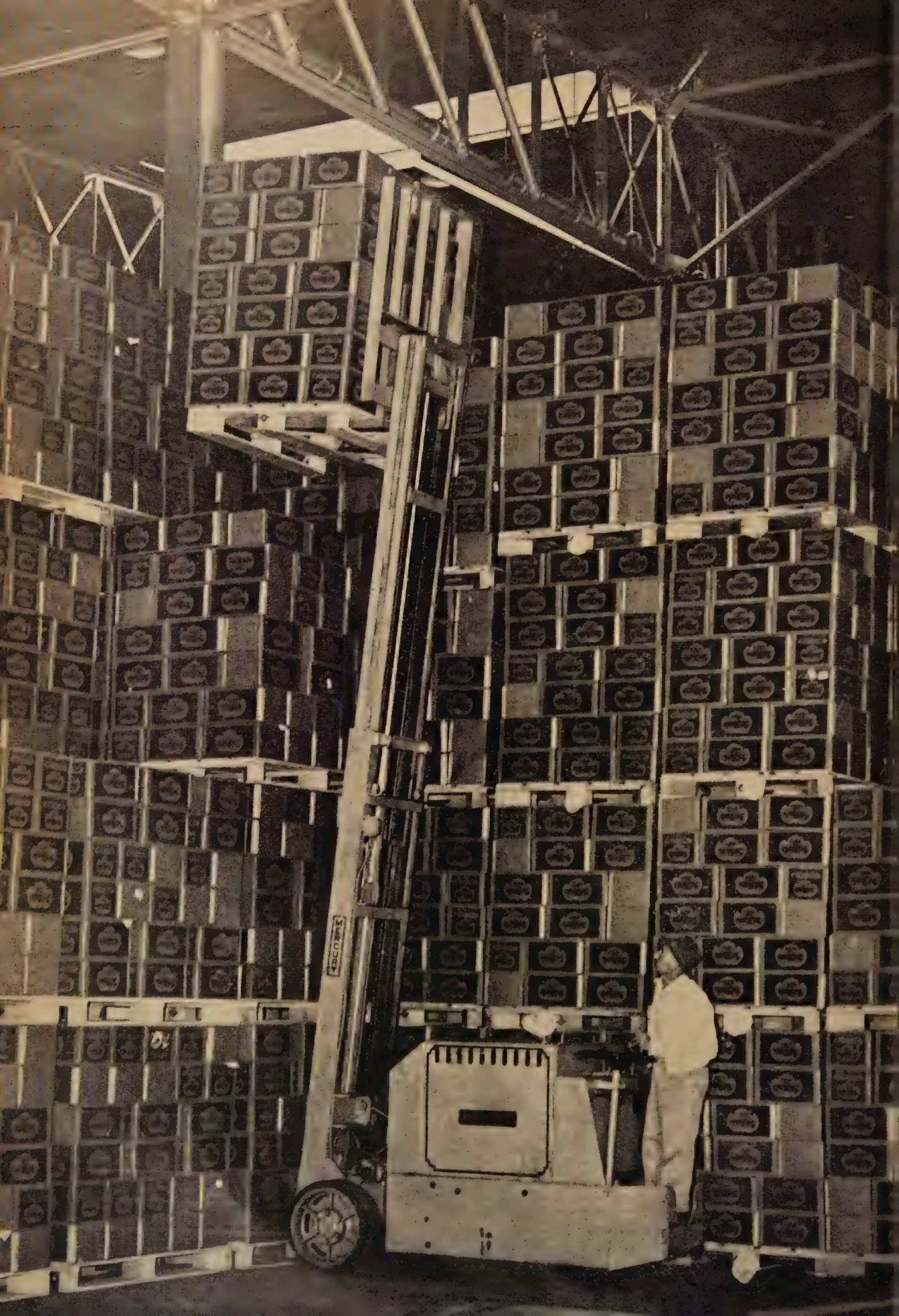
ADDRESS \_\_\_\_\_

CITY \_\_\_\_\_ ZONE \_\_\_\_\_ STATE \_\_\_\_\_

TITLE \_\_\_\_\_

Do You Come To Chicago to Buy? Yes No







# Materials Handling: Savings Frontier!

By Betty Savesky

Most Consumer Goods Would Cost 40 to 100 Per Cent More  
Were It Not For Today's "Miracle Of Materials Handling"

LOS ANGELES housewives tuned to television station KT-TV one day last June were astonished to find a program called "Fun in the Sun" and usually confined to light entertainment devoting a half hour to the subject of materials handling. Telecasting from a patio beside a swimming pool, materials handling engineers were giving female viewers a quick look at some of the highly complicated steps involved in speeding food, appliances, and other household goods from raw material to factory to consumer.

Although the story of materials handling and the job it is doing in modern industry is seldom presented with such glamorous trappings, it is not because the story lacks sufficient drama. In straight dollars and cents alone, the story is more pertinent to average Americans than all the soap operas combined.

C. J. Carney, Jr., managing director of the Society of Industrial Packaging and Materials Handling Engineers, makes the significant estimate that most consumer products would cost from 40 to 100 per cent more than they do, were it not for efficient materials handling methods developed over the

past 15 years. He adds, "The whole development of mass production with its assembly line technique is a miracle of materials handling."

R. C. Sollenberger, executive secretary of the Conveyor Equipment Manufacturers Association, puts it another way: "Without conveyors and other kinds of mechanized handling equipment, the automobile would still be a very expensive, hand-made toy for the very rich."

## More Than Fork Trucks

A good many business men are inclined to regard the admittedly complex subject of materials handling as a matter of fork lift trucks and more fork lift trucks. Undoubtedly fork lift trucks are important, but they constitute only one type of equipment in a rapidly developing industry. Annual sales of all types of mechanized materials handling equipment, exclusive of common carriers, now has passed the \$750,000,000 mark. The conveyor industry alone accounts for annual sales of \$200,000,000.

Materials handling equipment can be divided into three very broad classifications: continuous flow, batch or unit handling and moving devices. Continuous flow equipment includes a great variety of conveyor types: belt, chain,

roller, slat, hook or pan, to mention a few. Pipelines, continuous elevators (such as grain elevators) and gravity chutes also fall in this category.

For intermittent handling in lots or units there are many kinds of power hand trucks, fork lift trucks and pallets.

Finally, there are moving devices such as hoists, derricks and cranes. With proper attachments, power cranes can now handle virtually any solid, granular or liquid material. Their intricate working tools include hook blocks, slings, grapple hooks, or spreader bars; clamshell, orange peel or concrete handling buckets; skull crackers or pile driving hammers. Few men, in fact, are wholly conversant with baffling lingo of the expert cranesman.

## Positioner Field

In addition, there is an allied line of equipment known as positioners. They, too, carry such unfamiliar names as "elevating sheet feed table." Positioners, however, minimize tiring, costly manual handling at the machine or work place. Pallet elevating tables are a good example of this type of handling equipment.

While it may take a materials handling engineer to evaluate the

Mercury Mfg. Company  
Giraffe-like telescopic fork lift truck elevates pallet loads of cartoned bottles up to 217 feet.



comparative advantages of various classes of equipment for any given operation, many an average businessman is inexpertly poking into the subject himself. One good reason is that materials handling is a field where management can effect the greatest saving at the smallest cost.

### Major Cost Item

The Research Institute of America calls materials handling "the last frontier for savings." It has even been estimated that the movement of materials represents the largest single item, other than taxes, in the total cost of a finished product of any of the so-called processing industries.

Extensive surveys by industrial research firms indicate that at least 30 per cent of the manufacturing dollar is spent in the manipulation of materials. (The Research Institute estimates that materials han-

dling costs run from 30 to 50 per cent of total manufacturing expense.) The same surveys have found that many companies have no idea of what their handling costs actually are. Often they seem to be inextricably buried in production cost figures.

In prying into these costs and what can be done about them, industry has recently turned its attention to the handling of material as it is received, stored and moved to the point of processing; and the removal, storing and shipping of material after processing.

The earlier development of materials handling methods and equipment was devoted to actual processing procedures. Conveyors, hydraulic lifts, automatic loaders, power winches, electric hoists and countless other handling devices have been a part of leading factories for some years now.

According to W. L. Naumann, production manager of Caterpillar Tractor Company, "The Quartermaster Corps of Industry is

awakening from the dark ages and learning slowly but surely that high production methods and modern manufacturing techniques start with the receiving dock and end with the shipping platform."

But manufacturers aren't the only segment of industry that is alert to the cost savings possibilities of materials handling. Wholesale and retailers also have acted.

### Efficient Warehouse

The "last word" in modern materials handling from receiving dock to shipping platform is represented by the still new Hibbard, Spence, Bartlett and Company warehouse in Evanston, Ill. This gigantic one-story building, 1060 feet long and 800 feet wide (big enough to accommodate twelve football grid irons), was designed for an ideal flow of materials.

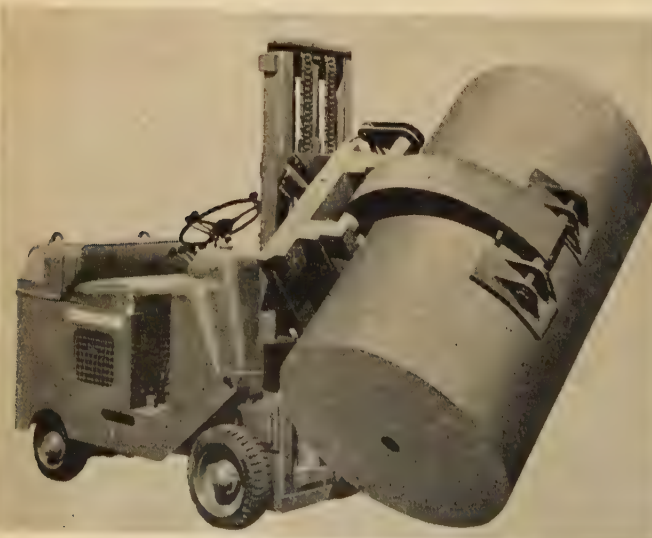
The size of the materials handling task at Hibbard is best illustrated by these statistics: the company distributes the products of 4,000 manufacturers to retail hardware stores and carries a stock of 30,000 different items.

Materials handling planning

(Continued on page 23)



MODERN MATERIALS HANDLING: Flexible "Paltier" installation (directly left) avoids crushing of cartons; load is carried on built-in corner shafts; made by Paltier Corporation, Chicago. Huge roll grip and upper device (bottom left) by Towmotor Corp., Cleveland, makes quick work of paper roll handling and stacking. Modern streamlining marks new "Transporter 101" (bottom right) of Automatic Transportation Co., Chicago, a battery-powered driver-led industrial truck.







Acme photos

As a disaster precaution, 20 million Americans will learn Red Cross first aid

# Civil Defense Planning Today

Atomic war would involve gigantic defense problems

By JOHN L. KENT

THE United States has again been confronted with the urgent problem of planning for civilian defense in time of war. The problem is far larger and more complex than ever before. Some two months before Korea burst into the headlines, however, the urgency of the problem had prompted a speed-up in the activities of the National Security Resources Board, the nation's top planning agency on civil defense. Wartime protection of civilians was made a specific responsibility of NSRB by presidential directive on March 3, 1949. A "Civil Defense Planning Advisory Bulletin," sent to all governors nine months later, recommended that the various states go ahead with their own planning. The document outlined "federal objectives" and made a series of recommendations for action by state and local defense groups.

A governor or mayor who took the trouble to visit the NSRB would be handed another copy of the bulletin and perhaps be given a quick briefing on its contents.



Washington planning includes the regional stockpiling of medical supplies

Then he would be told to read up on (1) "The City of Washington and an Atomic Bomb Attack" (an Atomic Energy Commission report), and (2) "National Security Factors in Industrial Location" (an NSRB report). That was about as far as civilian defense planning went until recently.

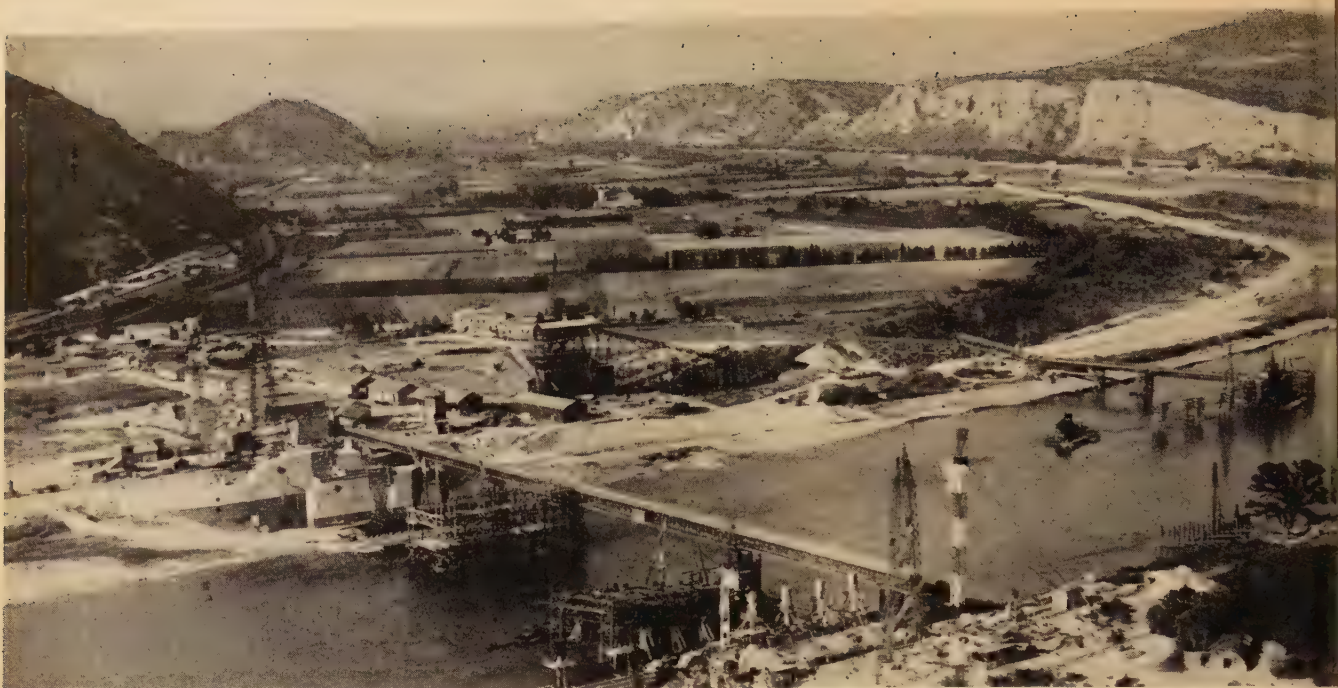
The planning picture has been confused in several ways. For one thing, a number of bureaus have jumped on the defense bandwagon,

hoping to increase their bureaucratic stature. The Public Health Service has a "radiological defense unit," Agriculture Department has a "meat supply" unit and the Children's Bureau has roughed out a plan to round up homeless children in the event of atomic war. Both Army and Navy have their civilian defense units as well.

On the other hand, actual planning for industrial plant and per-

(Continued on page 36)





Two huge ECA-financed hydro-electric plants on Rhone River will up electric output 10 per cent.

# France: Economic Convalescent

CAN EUROPE'S "KEYSTONE" WIN ITS CRUCIAL BATTLE AGAINST TIME?

**T**EN YEARS ago France crumbled under the first blow of the Nazi Wehrmacht. Today, a new battle for France—as always, the keystone of Western Europe—is being fought in the undramatic field of economics. The weapons are designed for construction, not destruction, and upon the outcome depends to a large extent the fate of all Europe.

If France can achieve economic stability, it will have laid the foundation for political moderation and for effective military defense. If it fails to reach this objective within reasonable time, France will fall to extremists of the right or left. Either way, the western democracies will be greatly weakened, Russia correspondingly strengthened.

While the ultimate goal is economic stability, the immediate objective is high productivity. Jean Monnet, author of the "Monnet

Plan" and director of the Economic Planning Commission, is a brusque, energetic man who directs the French postwar economy with an impatient demand for speed. Monnet relies heavily upon the ideas of his tactical commander in charge of productivity, Jean Fourestitie.

## Economic High Command

Fourestitie, a former professor of economics, has written numerous books expounding the theme: "Productivity, not production, determines the standard of living." Increases in production, Fourestitie holds, often mean that a nation is simply maintaining a consistent or declining standard of living for a growing population. But an increase in the rate of production per individual will increase the amount of goods available and his purchasing power. This idea, long understood in the United States, is finally

By JOHN CLARK KIMBALL.

making headway for the first time in France.

Even before the war, with excellent natural resources and many of the world's finest craftsmen, France bore one of Europe's lowest living standards. Political scientists and economists have offered many theories to explain why a nation with so many resources should be so poor. Undoubtedly a major factor has been the preference of French industrialists for high-profit low-volume production.

In the 'thirties, for example, a major hydro-electric project was halted on grounds that "France had too much electricity." Yet millions of French homes still depend upon the gas lamp!

It was recognized in 1945 that in war-ravaged France was to increase



productivity she must harness all possible natural energy sources, increase mechanical energy available to each worker, modernize equipment, and study foreign production techniques — particularly those of America. After a preliminary period of haphazard reconstruction efforts, the Marshall and Monnet plans have merged into a cohesive blueprint for recovery.

Already, there are many signs of economic revival. American tools and materials have poured into the country. The largest dam in Europe has been completed at Genesiat on the upper Rhone river. On the lower Rhone a still larger one — the Donzere-Mondragon — will be completed in 1952. These two dams alone will produce 3,700,000,000 kilowatt hours of electricity per year, increasing France's present total output by more than 10 percent. Twenty-one more hydro-electric plants are planned along the Rhone, five of them requiring France's largest river to be channeled into a new course.

### Productivity Problem

This great electrification program is one answer to the productivity problem. As Jean Rostagni, work director at Donzere-Mondragon, explains, "In the United States every citizen has three times the number of horse-power in mechanical energy that is available in France. Is it any wonder the French worker cannot approach the American worker in rate of production?"

In addition to the electrification program, new oil refineries, steel mills, bridges, highways, docks, ships and buildings are being completed almost daily in France.

Although Monnet and his recovery lieutenants provide the imagination essential to French recovery, they readily admit that without the Marshall Plan there would be no Monnet Plan. Significantly, no phase of the Marshall program, the billions in material aid notwithstanding, generates more opposition among French Communists than the item marked "Technical Assistance Program."

### Exchange Program

This year more than 1,000 technicians, executives, and laborers will journey to the United States under ECA auspices to study every possible phase of production from arboriculture to washing machines.

For all of its promise of the future, however, technical assistance does not enjoy the popularity one might expect. Since the Communists have no important posts in the French government they are free to criticize to the full extent of their ample budget. Behind them stand a fourth of the voters (as compared with one-half immediately after the war—a tribute to the present extent of France's recovery). Against the well-planned propaganda of the Reds is arrayed a motley assortment of political parties. Because of the internal dissension and disorganization among these anti-Communist forces, the Communists have had the propaganda field among workers pretty much to themselves. One of the jobs of technical assistance, with the aid of the ECA's labor information division, is to reduce this advantage.

The communists have attacked the productivity program with the charge that it will create unemploy-

ment. (Although on the other side of the Iron Curtain, Russia pins medals on high-productivity "labor heroes" and "shock workers.") They claim that by raising productivity jobs will be completed sooner and fewer men will be needed for shorter periods.

ECA officials believe this propaganda will be effectively resisted by workers returning from the United States with eyewitness reports of the everyday fruits of high productivity. As each team returns, its members are put to work disseminating information on the air, at union meetings, executive functions, through trade journals, and other specialized publications.

### "String-Savers"

Another major public relations problem involves what one ECA official describes as the French "string-saving psychology." For centuries the cost of aristocracies, dictators, wars, and a massive bureaucracy has kept a large percentage of Frenchmen in perpetual poverty. Traditionally, a Frenchman throws nothing away, no matter how battered and economically useless. He has extreme difficulty understanding why Americans have such things as disposable beer bottles. It is wholly impossible for him to believe that it is cheaper to make new bottles than to collect, transport and wash old ones.

The story is told of an ECA representative who tried to sell a Breton on the idea of replacing his plow horse with a tractor. When the young man finished his dissertation on the advantages of mechanization, the farmer shook his head.

(Continued on page 44)

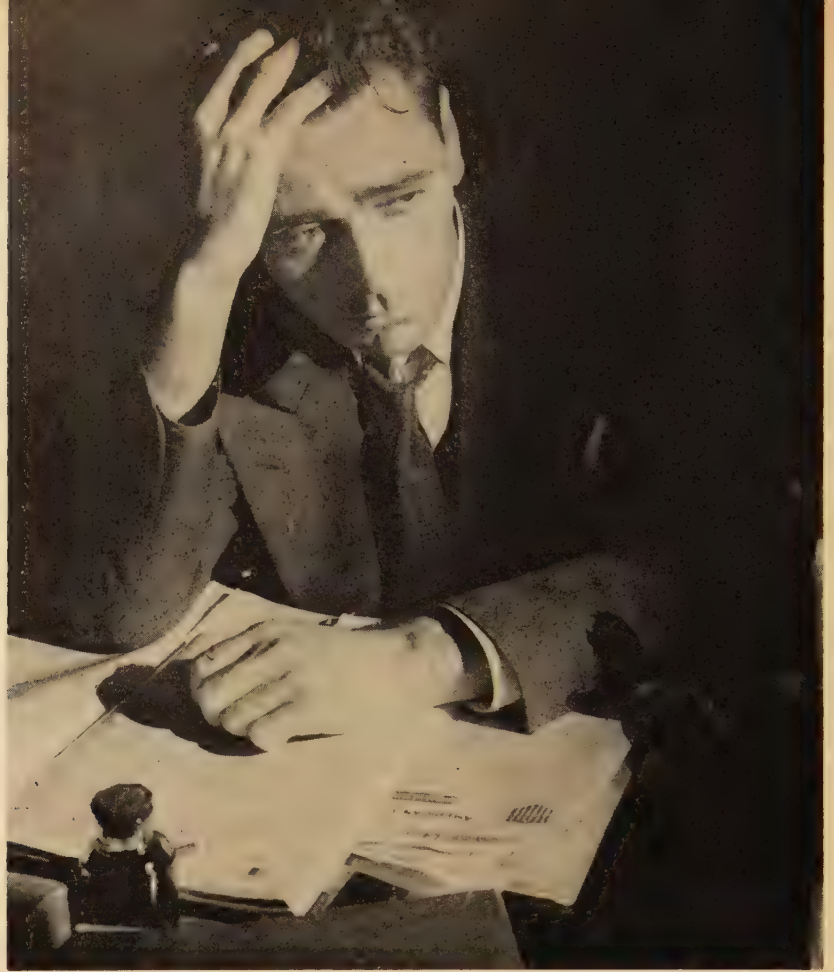


Marshall Plan U.S.-built trucks help rebuild France



This thriving new French factory city is nicknamed "Chicago"





Ewing Galloway

"The shiftless dolt, lacking ambition, never suffers from moodiness"

By

Dr. DONALD A. LAIRD

# MOODS ... and why we have them!

*Moods, explains this psychologist, are experienced*

*only by ambitious — but frustrated — people*

**T**HERE are rosy days and black days. Days when people are optimistic; others when they are dark and discouraged. Sometimes it is not just a day, but a week or even a month.

Contrary to popular opinion, moods are not caused by the weather, by something you ate or by glad tidings in the morning mail. Extreme mood changes, psychologists know, are usually due to balked ambitions and shattered hopes. The shiftless dolt, lacking any ambition, never suffers from moodiness. Only capable, ambitious people actually have marked mood shifts, a fact which makes it rather flattering to admit you experience good and bad moods. But an understanding of moods certainly doesn't stop there.

We can best see how moods in-

fluence people by examining folks who go from the very top of elation to the abysmal depths of discouragement. There are relatively few such people who suffer from "cyclothymia," a form of mental breakdown in which moods fluctuate violently. An individual may be elated, super-confident, fast-moving, and talkative to the point of almost maniacal self-satisfaction. After a period of perhaps a week or as long as a year, this cheerfulness is transformed into depression. The victim is pessimistic, slow-moving, unable to make decisions, and reticent, the very picture of abject melancholia.

Abraham Lincoln tended toward cyclothymia. Today, some 15,000

people throughout the United States have such severe attacks of cyclothymia that they have to be hospitalized. About three-fourths recover, but some of these can be expected to relapse later on. In addition, several times as many people suffer lesser attacks, as did Lincoln. These borderline attacks keep their victims from work or make them almost useless if they do go to work.

Many normal people, and almost everyone in business life, have alternating swings of moods from happy to sad, from peppy to sluggish, from optimistic to pessimistic, without going over the danger line. Those who have these normal pe-

(Continued on page 26)



# Labor Bosses' Finishing School

THE OBJECT: MORE RESPONSIBLE UNION LEADERS

By ELEANOR VAUGHAN

ONE day last Winter, a manufacturer of automotive parts watched with mingled curiosity and expectancy as a dozen shop stewards from his plant filed into the company conference room. Behind them strode the boss of the plant local, a fiery, loud-spoken individual whose habit of pounding the conference table had unsettled more than one labor-management meeting in the past.

"I want these guys to see how we do about negotiating a contract," big Jim, the union president announced. "They've got to learn how to meet with management sometime."

## Change of Outlook

Odd, indeed, thought the company president, for never before had the union boss shown the slightest inclination to spread responsibility among his members. As the conference proceeded, however, it became apparent that a change had taken place in big Jim's outlook. The shop stewards were soon receiving their first real insight into the company's problems. They learned how the company was influenced by general economic trends, and how these trends and the company's own position had to be taken into consideration if union-management relationships were to be businesslike and objective. Most important of all, perhaps, big Jim never belted nor pounded the table throughout the session. Instead, he watched the expressions of his stewards, drew them into the discussion and let them speak their minds.

The mystery behind all this lay in the fact that big Jim was one of hundreds of union leaders who had recently attended an institute on workers education. There he had learned, among other things, that responsible union leadership in-

variably gains more for everyone than undemocratic high-handedness.

This experiment, called the Union Leadership Training Project, is the largest privately-financed experiment in workers' education ever attempted. Sponsored by the University of Chicago, it is mainly

financed by a grant from the Carnegie Corporation. The object of the course is to develop better and more responsible union leaders through the use of chatty, straightforward educational manuals that can be used in home study courses, by local unions to train officers



Boone, Iowa, CIO labor institute workshop trains members in sound labor relations



Informal labor union session in Tennessee teaches facts of "union responsibility"



or rank-and-file members, and in university or community sponsored schools.

The study manuals are anything but "ivory-tower" textbooks on labor relations. They were compiled by a team of university researchers, headed by Professor Alexander Liveright, which has been visiting plants, union halls and labor education institutes for more than three years.

### Forthright Text Books

The material is written in the language of the working man. One 212-page study manual on collective bargaining, for example, makes the forthright observation that an employer in negotiating a contract wants to avoid giving away such "rights" as his freedom to assign work, to use his machinery as he sees fit, to discipline workers and to pick men for promotion according to his view of their ability. At the same time, he wants to gain economic stability, more profits through lower costs (meaning "more production per worker per hour"), labor peace, businesslike relations with the union ("consideration for the company's needs and problems in arriving at bargains"), and the promotion of broad economic and social goals.

The study materials consist of instructors manuals and discussion guides for students. Wisely, the suggested discussions revolve around typical plant problems that harass union leaders as well as management. For instance, a study leader

may read this case of "Joe Gertz" who comes to his shop steward complaining:

"The foreman just gave me a disciplinary lay-off for three days. He told me that Jim Jordan—he's a lousy company stool pigeon—had just reported to him that Bill Wright and I had a fight during our lunch hour. Wright works under another foreman. I met him in the washroom and he called me a 'dirty sheeney.' I socked him one after we got out of the washroom. Later, when I saw him on the street, we had it out again. I beat the hell out of him, but all his foreman did was to send him to first-aid... I don't see why I should be the one to get laid off."

Confronted with this everyday realism, students are asked to suggest their solutions, were they in the shop stewards' position. In other cases, students act out the roles of principals in such disputes, thereby seeing how they can be most amicably settled.

### 500 Take Course

So far this year 500 union leaders from Juneau, Alaska, to the coal towns of Pennsylvania have used the study materials, and the demand from 1950 summer labor institutes has completely exhausted the university's supplies of some manuals.

The State Department has ordered 200 sets to pass on the best features of American trade unionism to Western Germany, the War Department is using them in Ja-

pan, and the Pan American Union is distributing them in Central and South America. Because they reach beyond strictly union issues into the broader aspects of human and community relations, church, civic and business groups are also finding the booklets helpful.

### Management Use

Management is using them in two ways. Some companies have ordered sets to find out what actually goes on in the workers' minds, thereby hoping to improve their labor relations. Others have discovered that the training methods uncovered by the university are useful in employee training programs. International Harvester Company has adapted some of the material for its central foreman school, while Sears Roebuck and Company and Carnegie-Illinois Steel Corporation are using the material in company training courses.

Why is the unique course finding such wide use? Primarily because it covers everyday problems, it is easy to understand and is highly stimulating. Each lesson is a collection of facts and sound ideas plus discussion problems.

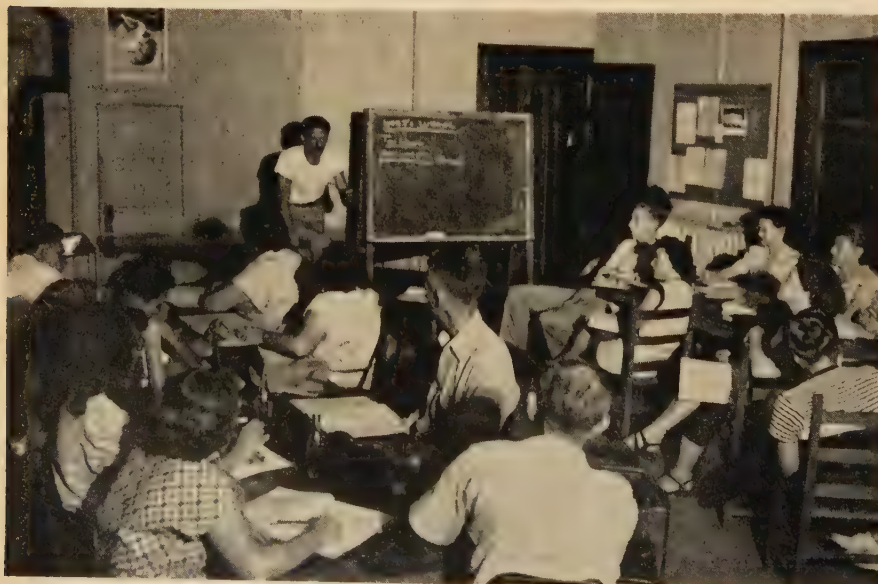
One case in the seniority problems section of the collective bargaining manual involves two factory workers:

"Pete and Joe have been working on the same job, performing it equally well. Pete has six years of service, Joe has three. Joe has just been promoted to the next job above which he learned on his own initiative.

"Pete feels he had a raw deal. He has asked his grievance man to help him.

"Under the contract, superior ability determines the promotion. Joe can do the job; Pete has not yet learned the job..."

The discussion manual does not say, "Pete should have the job because of his seniority," or "Joe should have the job because he has demonstrated superior ability." Instead, the discussion leader is advised to introduce possible facets of the problem, such as the union obligation to abide by its contract and how to interpret "superior" or "relatively equal" ability. Different groups of students therefore



Question: "What's wrong with your grievance machinery?" Professor Liveright is discussion leader

(Continued on page 34)



# For More Sales: Ask Them To Buy!



When store clerks have been trained to say "Buy this . . .", sales have jumped

By DONALD J. GOULD

(Mr. Gould is vice president of the Chicago firm of Gould, Brown and Sumney, Inc., a marketing organization whose job it is to answer a great many practical problems involved in merchandising. Clients want to know, for example, whether auto show visitors like a certain new model, whether grocery store customers ask for a specific brand of cereal, whether women prefer round or square compacts, whether store clerks use effective sales talks, etc. During the past two years, Mr. Gould's firm has made 342 market surveys, all aimed at determining what makes people buy. His article is based upon a study of some of the results of these surveys. The Editors.)

**E**XTENSIVE marketing surveys by our company, involving a wide variety of merchandise, have convinced us that a great many companies are blind to one of the most fundamental truths of marketing. It is simply this: people

are most apt to buy a product when asked to buy it.

True, there are other things that influence people to buy; for example, advertising, counter displays, prices, and the human desire to "keep up with the Jones." But all these influences considered, there is nothing quite so effective in selling a prospective customer as simply asking him to buy — at the point of sale.

## Tests Prove Point

Consider the case of a large commercial bakery,\* the first in its region to use enriched flour in its bread. The company heralded this innovation with a burst of radio and newspaper advertising, yet sales reports for the first month showed no appreciable swing to the improved bread. At first, company officials rationalized the situation by arguing that the expensive advertising outlay would have a "delayed impact" certain to make itself felt in the second month. In

the second month more money was spent on advertising, but results were still disappointing.

However, our survey of grocery stores disclosed this interesting fact: only 12 per cent of the retail clerks who were selling bread had any notion of what "enrichment" really meant. The rest sold the loaf on the counter nearest to the customer even if he specifically asked for "enriched bread". The commercial bakery had simply forgotten to educate retail clerks as part of the sales campaign.

## Sales Up 139%

Later, the bakery chose 48 grocery stores, where it explained to clerks the advantages of enriched bread, and asked them to urge customers to buy bread with "added vitamins." Within two weeks, enriched bread sales in these stores jumped 139 per cent, all because clerks had begun telling customers: "Buy this bread, it has vitamins added."

In interviewing 6,600 women who own vacuum cleaners, we discovered that 34 per cent bought their cleaners because they saw them demonstrated and were asked to buy; another 14 per cent bought because of "persistent salesmen." Thus, almost half of all such purchases had been made because people had been asked to buy — directly, face to face! The same survey found that the two vacuum cleaner manufacturers with largest sales in this territory specifically instructed door-to-door salesmen to ask the prospect to buy.

Dealer outlets which reported sales of 10 or fewer vacuum cleaners per month had no regular store demonstrations nor door-to-door

\* NOTE: Case histories have been slightly altered to avoid disclosure of company identities.



salesmen. If a prospect came in and asked to see a cleaner, the dealer would try to sell the customer, not otherwise. But all dealers selling 25 or more cleaners per month had regular demonstrations — anyone standing within hearing distance was likely to be button-holed — and most of these dealers followed up leads into the home, always winding up by asking people to buy.

### Product Knowledge

A large fountain-pen manufacturer came to us with this marketing problem. The company spent heavily for continuous national and local advertising, counter displays, and the like, yet sales were anything but outstanding. In a market survey we discovered that too many clerks, when asked by a customer "to see some pens", would lay two or three on the counter, say a few words about the price of each, and wait for the customer to make his choice. Questions relating to the technical qualities of any of the pens were usually answered with wonderful vagueness, indicating an abysmal lack of product knowledge.

Thus informed, the pen company did two things. In six stores it got the privilege, in return for

an increased cooperative advertising budget, of indoctrinating clerks with essential product knowledge about the company's pens. In six other stores it did the same thing — but also told clerks that they must ask prospects to "buy this pen." The results: in the first set of stores, sales of the company's pens increased nine per cent within a month; in the second group sales rose 42 per cent.

A marketing study of 600 photographic supply dealers disclosed another fact of this sales problem. The leading manufacturer in this industry was acknowledged by all dealers, and stood first in dealer influence, advertising and in the dealer aids which it made available to help at the point of sale. But, in a special classification of lamps, the number two company was comparatively small, its advertising and promotion resources far outdistanced by the industry leader. Yet this company showed up continuously at the heels of the top seller, and ran neck-and-neck in some areas of the country. Investigation showed that this second company placed great emphasis on putting salesmen out into the field calling on dealers and urging them to buy his brand.

Surveying farm equipment deal-

ers throughout the country, we found that 42 per cent were beginning to encounter buyers' resistance; 58 per cent had noticed none whatever. Superficially, this might have indicated that farmers were better off in some regions than in others, and hence gave different reactions to sales talks.

But digging more deeply, we discovered that with rare exceptions it was farm equipment dealers who started in business prior to the war who found no buyer resistance. Those who did had started after 1941.

Studying the methods of the two classes, it became evident that pre-war dealers had sent salesmen out on the road, calling on farmers and urging them to buy new equipment now. The newer dealers, accustomed only to wartime selling, were still idling in their showrooms, waiting for farmers to drive in and see the latest equipment. These, of course, were the dealers who were complaining of "buyer resistance."

### Brand Recognition

In another marketing study involving building materials, we discovered that brand recognition generally followed the extent to which advertising and promotional literature were utilized. But, curiously, the sales of a minor company cropped up as an important factor in several areas. They were far out of proportion to advertising and promotional expenditures.

Upon investigating, we found that this company had launched a widespread sales program after the war, calling on dealers, builder-contractors and architects, and specifically asking these prospects to buy its building materials. Unlike the major building material brands where consumer knowledge of product qualities was gained from advertisements and literature, in the case of the products of this minor company, interviews indicated that consumer knowledge sprang mainly from what dealers, building contractors and architects had told consumers. The continuous pressure of salesmen urging them to buy had so impressed these dealers, builders and architects that they, in turn, applied the same kind of pressure on the consumer.

Unfortunately, many companies





have come to feel in recent years that it is undignified, even rude, to have their salesmen more than outline the virtues of their product. Their men are coached to act somewhat like ambassadors paying formal calls of state. True, there may be "high level" methods of letting customers to buy "X-Brand products" without broaching the dreaded word "buy." But our conclusion is that the company which emphasizes "buy this now" in its sales talks is the company that will, indeed, be able to induce more people to purchase its merchandise.

## Materials Handling

(Continued from page 14)

starts before merchandise reaches this wholesale warehouse, for vendors of some products (bolts, screws and pipe fittings) ship goods to Hibbard's on pallets. These pallets are part of a rotating supply between the vendor and the company.

Inside the warehouse are three railroad unloading sections which permit spotting of cars at an average 75 feet from the place on the warehouse floor where the merchandise is stored. All merchandise handling — removing goods from incoming freight cars, stacking in the warehouse, moving to the shipping department and loading is done mechanically by a system of fork lift trucks, tractors, roller conveyor and two overhead drag lines.

Assembly line procedure is applied to order filling by using small trucks which are pulled by the continuous overhead draglines — the one a 1,200 foot line around the bin merchandise section, the other a 1,600 foot circuit around the full package section.

Fred F. Threadgold, vice president in charge of operations at Hibbard, estimates the company has saved 25 per cent in man hours by its mechanized materials handling layout. He is hopeful of still further economies as the company continues to improve its methods.

According to the Electric Industrial Truck Association, improved methods of materials handling have not advanced as much as the development of new machines and equipment has. Hence the more fertile field of cost sav-

## Room Cooling

# PERFORMANCE

*without equal!*



*Work today  
in cool  
comfort*



Work at top efficiency on hottest days with cool, healthful comfort that only a Mitchell Room Air Conditioner can give you. Cools, de-humidifies, circulates, ventilates, filters out dust and dirt (removes 99.9% pollen for amazing hayfever relief). Fits any window — plugs in like a radio — no plumbing connections required. Beautiful decorator's beige furniture steel cabinet. Phone today for free Cooling Survey in your home or office.

*Sleep tonight  
in cool  
comfort*



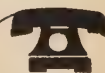
Enjoy the cool welcome relief of a good night's sleep every night no matter what the temperature is outside! Treat yourself and your family to real air conditioning comfort that you can get only in a Mitchell. You will reduce summer illnesses due to hayfever and restless nights when your family can sleep, work and play in a more comfortable atmosphere. There is a Mitchell Room Air Conditioner for bedroom, dining room, living room and den. Investigate today.

**FOR FREE COOLING SURVEY Call ENglewood 4-7500**

**3**

**AUTHORIZED DISTRIBUTORS**

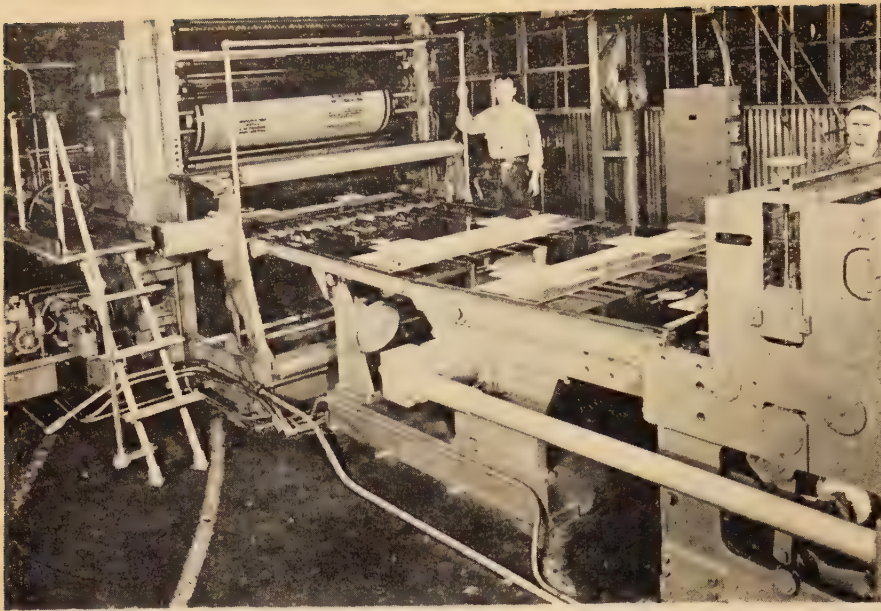
COMPLETE WAREHOUSE STOCKS TO SERVE YOU BEST



EXCELLENCE IN ELECTRICAL PRODUCTS  
**Englewood**  
ELECTRICAL SUPPLY CO.

- CHICAGO 5801 S. Halsted St., Englewood 4-7500
- ROCKFORD 124 N. First St., Rockford 3-5441
- SOUTH BEND 325 N. Lafayette Blvd., Phone 4-1173





**OUTSIZE LITHOGRAPHY** — Huge 55-gallon steel drums can be lithographed in any number of colors on this new press developed by R. Hoe and Company, New York. The first press, installed at Rheem Manufacturing Company's New Orleans plant, lithographs 3 x 6 feet sheets of 18-gauge steel at 4200 sheets (or more than 75 tons) per hour. It handles the steel plates just as a conventional press handles paper.

ings for some companies may lie in better utilization of existing equipment by revamping materials handling methods.

A case in point is Thompson Products, Inc., Cleveland. Additional shop trucks were requested to handle increased volume of work-in-process. Analysis showed trucks were making too many idle trips. The company put in a two-way radio system at a cost less than the purchase price of a new truck. The result was a better than 90 per cent utilization of shop trucks, better service for the production department and reduction in the truck driver force.

Actually, materials handling engineers report that certain types of equipment have been oversold. Large sums of money have been invested by some companies in equipment which did not produce the promised results. Engineers emphasize that there is no one type of materials handling equipment that excels for every job. It all depends on an individual company's needs.

#### Survey Essential

Company after company has found that the most inexpensive way to attack the problem of mechanization of materials handling is to have a survey made by a competent engineer. Even then, it is some time before an engineered

system works smoothly and reaches an optimum of efficiency.

A good example of the engineered, coordinated approach is Caterpillar Tractor, which started studying its supply lines and the problem of improved mechanical handling late in 1945. It took six months to complete the study and to formulate the foundation for a modern materials handling program — much longer to put it into effect.

#### New Layout

The study showed that not only was new equipment necessary, but the whole receiving area needed to be revamped and streamlined for fast handling. To do this, Caterpillar incorporated depressed unloading docks in all new buildings and revamped older areas to give the same advantage.

Problems presented by certain components had to be worked out with suppliers. The company developed a plan with a forging vendor to ship crank shafts in a bundle, for example. The bundle size coincided with the dimensions of a self-tiering rack. The company also had to experiment with pallets and fork trucks to see what kinds fitted its needs. In the latter equipment, it became a question of gas, electric, or battery powered trucks.

Engineers point out that the largest area for improved materials

handling lies with companies which occupy older, multi-story plants inasmuch as the newer one-story structures are usually engineered for expeditious flow of materials. Of course, there are some types of industry whose processes lend themselves best to multi-story buildings where gravity handling is most efficient.

#### Economy Rules

In general, engineers point out that any plant will have minimum materials handling costs if:

1. No material is handled unnecessarily — handling frequency and distance kept to a minimum, no back-tracking or cross-hauling.
2. Materials are handled in bulk if possible.

3. Packaged materials are handled in unit loads by pallet. The more pounds handled in a single operation the lower the handling cost per pound.

4. Mechanized or gravity methods are used wherever possible.

Cost savings attributable to improved materials handling include many factors such as: reduction of manpower involved in moving materials; minimizing in-process inventory; releasing valuable floor space; less labor turnover where heavy jobs are mechanized; less production man hours lost because of accidents.

Case histories illustrate a few of these points:

**Monsanto Chemical Company:** postwar production increases had created a critical shortage of storage space in one department. The company built a shipping platform, altered doorways, moved ductwork, revised its material flow and purchased fork trucks and 3,000 pallets. Total cost, \$24,000; annual savings of \$7,600 through reduction of manpower used and other efficiencies.

**Armco Steel Corporation:** company found \$35,000 a year could be saved on an average open hearth by handling refractory bricks on pallets rather than loose. An average open hearth uses 300 carloads of bricks, plus 450 carloads of other refractory materials a year.

**Kindel Furniture Company:** helped develop a new guided pallet conveyor for furniture manufacturing. With it the company cut work in process by 35 per cent; trimmed process time 50 per cent;



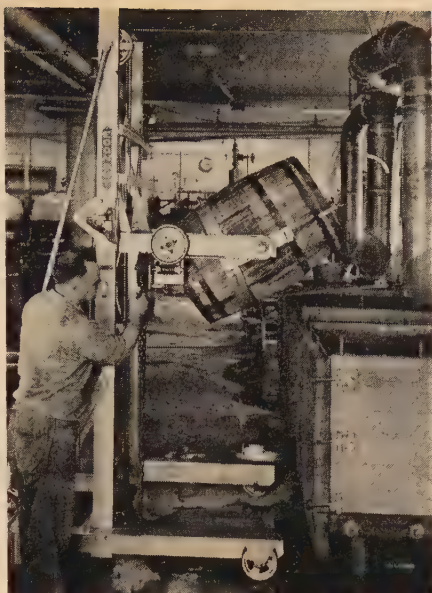
decreased clean up cost 40 per cent by keeping work off the floor, and reduced its direct labor cost 25 per cent. In addition, damage to goods in handling was drastically cut.

One of the biggest lessons in materials handling learned in the last war was the advantage of unitized over loose packing in transporting materials. The most versatile and useful unit pack was found to be the pallet.

### Palletizing Trend

The Automobile Manufacturers Association reports that its members have invested millions of dollars in pallets and dock facilities to handle palletized material. One auto company estimates that 95 per cent of the freight traffic within its plants now moves on pallets, while 25 to 30 per cent of its incoming shipments from suppliers are palletized.

With all the mechanization of materials handling there still remains a number of "grunt and groan" jobs throughout industry. The National Safety Council gave



Versatile lifter by Economy Engineering Company, Chicago, tilts huge barrel for emptying, also handles drums and skids.

top billing last year to materials handling for causing a quarter of all temporary total disability accidents. Of these 85 per cent were caused by lifting.

In Illinois in 1948, almost \$1,000,000 was shelled out in com-

pensation payments to workers disabled by hernias and back injuries. In that year, these injuries accounted for one-fifth of all accidents in the state.

### Hazards Avoided

Apart from the reduction of accidents that may be effected by mechanization, is the general improvement of working conditions that can come through new handling machinery. Mr. Sollenberger of the Conveyor Manufacturers Association points out that indoor traffic hazards, dust — and even gases — can be eliminated through the use of properly designed conveyors. He cites various foundries and chemical plants as examples.

At the consumer level of business, mechanized materials handling is just coming into its own. Weiboldt's in Evanston is an example of good handling at the retail level. If a customer buys an item say on the third floor, it is chuted down to the basement of the store, carried by a conveyor belt to the shipping platform and placed in a

## SANDY MACGREGOR

THE  
SCOTCH  
M.M.\*  
SAYS:



YOU CAN SAVE A LOT  
OF FUEL \$ ALL WINTER  
BY REPLACING CRACKED  
AND BROKEN WINDOWS NOW  
DURING GOOD WEATHER!

TWO HUGE WAREHOUSES  
BIG STOCKS OF ALL TYPES OF GLASS  
FOR RE-GLAZING  
AND MODERNIZATION

COMPLETE GLAZING SERVICE

FOR SUGGESTIONS & ESTIMATES

PHONE

MONROE 6-9800

PLATE GLASS • WINDOW GLASS • GLASS BLOCK • TUFFLEX GLASS • MIRRORS • GLAZING  
ROLLED & FIGURED GLASS • THERMOPANE • VITROLITE • SAFETY GLASS • WIRE GLASS

**Cadillac**  
**Glass**  
COMPANY

\*MAINTENANCE MEN CAN REDUCE Fuel Costs  
by checking all windows, doors and skylights  
for glass replacement now.



delivery truck, receiving no "man-handling" on the way.

Food handling in restaurants is also becoming highly mechanized. In the Metropolitan Life Insurance Building in New York City, twelve "subveyors" have been installed to handle food trays between kitchens and dining rooms at a rate of 7,200 trays per hour.

### Luggage Conveyor?

The day of the use of baggage conveyors is almost at hand, according to engineers. A major hotel chain, for example, is contemplating luggage conveyors running from street curb to hotel lobby. In this vein, Harold Von Thaden, vice president of Hewitt-Robins Inc. posed this question to a meeting of mechanical engineers: "With the increasing length of luxurious passenger trains, why should we have to carry heavy luggage for a distance of two city blocks down the station platform?"

"Why not ride along on a moving sidewalk, luggage in front or back of us, free from the discom-

fort of struggling with baggage?" he asked.

The greatest challenge to the materials handling industry, and the conveyor engineers in particular, is the projected 130-mile belt conveyor system known as the Riverlake "Rubber Railroad" for transporting bulk tonnages. With terminals planned for Lorrain, Ohio on Lake Erie and the Ohio River, and spur lines to Youngstown and Cleveland, the twin-belt

system could carry 32,000,000 long tons of iron ore a year south from Lake Erie, and 20,000,000 tons of coal north to the lake. Annual savings of 20 to 45 million dollars, depending on tonnages, are anticipated.

Projects like these and the envisioned luggage conveyors illustrate that the future of the materials handling industry is limited only by the ingenuity and imagination of its leaders.

## Moods . . . And Why We Have Them

(Continued from page 18)

sonality swings are called the "cycloid" type. The downswing into gloom is brought on by a feeling that they are balked in their ambitions and can do nothing about it, so they retreat temporarily into melancholy and discouragement.

The upswing occurs when they realize, or at least pretend to realize, that they are not balked. People who swing high and then low tend to be hardworking and restless.

They have a sense of humor, high initiative, and usually are heavy smokers. Some become heavy drinkers when they feel a melancholy period overtaking them.

The cycloid make-up is found in every occupation, but it predominates among sales people. This is often the reason why a good salesman gradually slumps, and then rebounds to his former hard-driving pace. Executives often have a tendency to reproach a worker who slips, but what he really needs is encouragement. Criticism may aggravate a depressed mental condition because it not only adds to the feeling of failure, but also arouses latent hostility. It is silly to tell a person he has slumped; he is the first to realize it. It is far wiser to remind him of the good job he had been doing.

### Up-Swing Mood

During an up-swing in mood an individual is often inclined to take on too much work, which in turn may later lead to renewed discouragement. Salesmen sometimes ask to have their quotas increased when they are in the up-swing, then never reach their optimistic goal.

The "psychological moment" to ask the boss for a raise is when he is permeated with the excessive optimism of the psychological upswing. Daniel Boone made an impromptu test to see if the girl he liked was in the right mood before asking her to marry him. He appeared accidentally to cut her dress, and when she took the damage in good spirits, wary Daniel popped the question. When folks are in the midst of a downswing, there

# GEORGE M. LORENZ STEEL CO.

## MILL & WAREHOUSE DELIVERIES SHEET STEEL

### COLD ROLLED STRIP IN CUT LENGTHS & COILS

HOT ROLLED STRIP

H.R. PICKLED STRIP

WELDED TUBING

TIN PLATE

TIN MILL BLACK PLATE

HOT ROLLED ANNEALED

HOT ROLLED PICKLED

AUTO BODY

ROUND EDGING

GALVANIZED SHEETS

STAINLESS STEEL TUBING

BLACK & GALVANIZED

PIPE & TUBING

WE SHEAR OR SLIT TO EXACT SIZE OR BLANK

# HA ymarket I-0461

2400 W. MADISON STREET



is no better medicine than to keep busy at something which once seemed worthwhile.

There are few cycloids in slum areas, but smart residential areas have more than their share. It is an ailment of successful people, who wish they were more successful. It is interesting to find that there are practically no breakdowns from this cause in Russia. Under Communism, as under the old czars, Russian culture stifles rather than encourages initiative. Russians are imbued with the idea that each has the same lot in life. There is no tradition of starting at the bottom and working one's way up.

But in our culture ambition has been a tradition since pioneer days when people migrated here with nothing and became landowners and proprietors through their own efforts. This atmosphere of successful attainment motivates a striving to succeed, and, unfortunately, also causes breakdowns when one has too much ambition or feels that he is a failure.

### Appreciation Needed

Thus it is that we can stand criticism, which is sudden and transient, better than we can stand the lack of appreciation, which may gnaw at our morale for months or years. Criticism is hard on human relations for the moment, but it does not create the same feeling of

fruitless drudgery that comes from lack of encouragement. It is a case of what is omitted, not what is done to us.

Many psychologists believe that competition for grades in public schools may prepare the mind for symptoms of balked ambition. Competition for athletic awards and scholarship prizes, as individuals rather than as teams, has also been blamed. But the lack of encouragement and teachers' neglecting to praise children are probably just as influential as direct personal competition in building a dread of failure.

### Too Much Ambition

When an individual has set his aspirations too high or believes he is a failure, he may have to endure what psychologists call the "sequence from aspiration to frustration to demoralization." There are many famous examples of this sequence at work.

King George III of England had five distinct attacks of cyclothymia, each serious. The first, at 27, sent him into six months of dejected brooding. Each successive attack was more severe, until at 50 he was so deranged that he had to be kept in a straight-jacket. At one time, he stood up and blurted out a long statement in the middle of church services.

How could a king have balked

# This is the System

...to Slash Telephone Expense

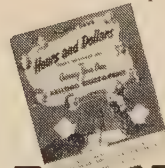


Own Your Own  
**KELLOGG**

## SELECT-O-PHONE

Automatic Private Telephone & Paging System

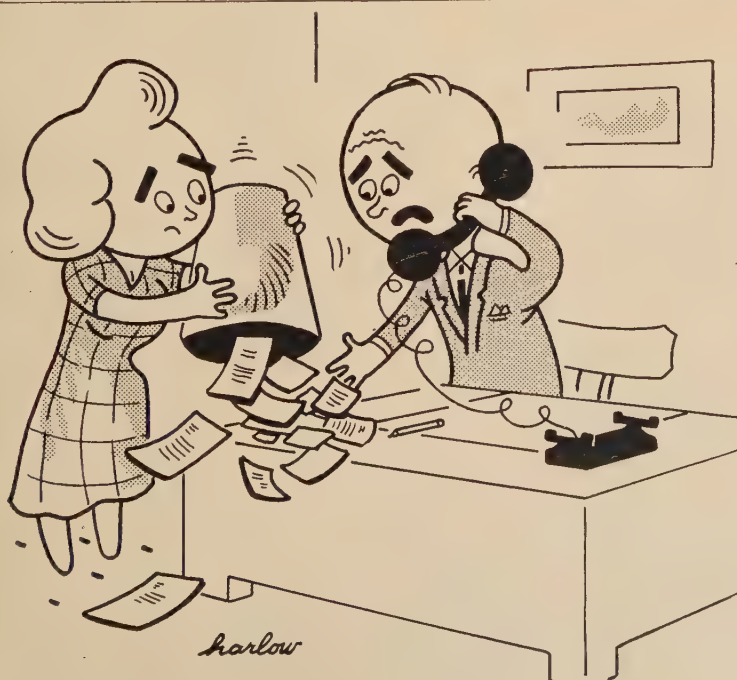
Now you can slash both *direct* and *indirect* telephone expense . . . Because Select-O-Phone handles all "inside" calls automatically, you need pay rent on only a few of "city" telephones, instead of many. With full control of toll and personal calls you eliminate needless charges and lost staff time. You keep your regular switchboard clear—customer and essential calls get better service. And remember . . . Select-O-Phone is a full fledged telephone system. You have *private* conversation at the flick of a dial and many *other* advantages only telephones offer. For 5 to 48 stations. By far the easiest system to install! Made by Kellogg, a 50-year leader in the commercial telephone field.



Get the Full Savings Story  
New bulletin just off the press.  
Shows how Select-O-Phone  
saves a typical company  
hours and dollars every  
business day.

**SELECT-O-PHONE DIVISION**  
Kellogg Switchboard and Supply Company  
6608 So. Cicero Avenue, Chicago 38, Ill.  
Please rush your new bulletin explaining all  
the ways Select-O-Phone can save my company  
money and increase efficiency.

NAME \_\_\_\_\_  
COMPANY \_\_\_\_\_  
ADDRESS \_\_\_\_\_  
CITY \_\_\_\_\_ STATE \_\_\_\_\_



"My secretary is checking our files for that contract now."



## A. J. BOYNTON AND COMPANY

ENGINEERS AND TECHNICAL  
COUNSELORS

*A Competent  
Engineering  
Organization  
Committed to Rendering  
Accurate and Efficient  
Technical Service*

ECONOMICS OF PRODUCTION  
PLANT LAYOUT & DESIGN  
BUILDINGS, STRUCTURES  
AND EQUIPMENT  
COST ESTIMATION  
CONSTRUCTION  
OPERATION  
PRODUCT DESIGN  
ENGINEERING SERVICE  
ELECTRICAL, MECHANICAL  
STRUCTURAL, METALLURGICAL

109 N. WABASH AVE.  
CHICAGO 2, ILL.  
CE ntral 6-8442

## "Pardon Me Please!"

**A VALUABLE BOOKLET . . ONE  
THAT CAN SAVE YOUR COMPANY  
TIME AND MONEY**

Write or phone *today* for your copy . . . find out how business concerns, large and small, have profited by Lien's Specialized Washroom Sanitation Service.

Pardon Me Please, outlines a sixteen point program guaranteed to reduce washroom Sanitation Maintenance costs — increase customer and employee good will.

## LIEN CHEMICAL COMPANY

9229 W. Grand Ave.,  
Franklin Pk., Ill.  
Phone: TU 9-7330

Keep Clean  with LIEN

Branches in Rockford, Milwaukee,  
South Bend

ambitions? Because, like many top executives, he wanted to be too good. George III wanted to be a "good king," and worked hard at it. He was not a slick politician, nor could he evade issues or compromise his conscience. Politicians harassed and irritated him, feeding his feeling of failure which first became acute when he was 27. His trying too hard ended in pathetic failure. Onlookers may envy a man's position and accomplishments, yet he may feel a complete failure because he had his sights set sky-high.

### Compromise Hopes

Other famous cyclothymes were Alfred Lord Tennyson, the mild-mannered poet whose mildness concealed his ambitiousness. He was in hospitals several times for melancholia. Cesar Ritz, a peasant boy who became a famous hotel owner and set a standard of living still described by the word "Ritz," broke at 52 and cried "I am worse

than a dead man." Arthur Chevrolet, one of the brothers who formed the automobile company bearing their name, took his own life in an acute mental depression.

It is essential that we learn how to compromise our hopes, to be satisfied more often than not with something less than perfection. At the same time, we must learn to keep the hopes of others nourished by encouragement and appreciation.

Occasionally, workers are over-motivated by wage incentive plans or by contests, only to have their high hopes dashed when the bonus has to be cut or someone else wins the prizes. Over-motivation can be self-defeating. It is a common error of parents, who want Willie to go to the White House or become a millionaire by thirty.

Reasonable aspirations and ample encouragement are a good combination for mental health and morality in the turbulent world in which we live. Especially when we remember that mental health is often more important than physical health.

## Trends In Finance and Business

(Continued from page 10)

uct mix, research and other management efforts."

« « » »

**Record-Keeping  
Studied By  
Washington**

The possibility of atomic war, however much one dislikes to think about it, raises a host of home front problems (which are further discussed beginning on page 15). One of the vital problems with which our planners must now cope is that of record-keeping. Such questions arise as: in the event of a disastrous attack upon a major U. S. city, what happens to mortgages, deeds, insurance policies and vast numbers of similarly vital papers stored in banks and public buildings?

Until now, Washington, D. C. is the only city which has undergone a simulated atomic bomb attack and there one of the most interesting findings of government observers involved this essential matter of record-keeping. In several District of Columbia offices these observers discovered to their satisfaction that all public documents had already been microfilmed and

removed to relative safety beyond the city. To what extent this practice has been followed elsewhere in the country, the National Securities Resources Board has not disclosed, but it has recommended that those responsible for public and private documents give the matter sober thought.

« « » »

A timely study of war and interim-war earnings of the nation's major corporations has just been completed by the New York Stock Exchange. The survey covers the years from 1939 to 1949, and provides an indication of the over-all influence upon profits of war and peacetime conditions.

Back in 1939 the estimated net income of 730 listed corporations amounted to \$2.9 billion (an increase, of 60.6 per cent from the previous slump year). By 1941, earnings of 793 concerns had jumped to \$4.3 billion, but for the following four war years they remained more or less stable as a result of taxes, extra depreciation re-



serves, inventory write-downs and the like. In 1942, 805 concerns made \$4.1 billion; in 1943, 816 concerns made \$4.2 billion; in 1944, 712 concerns made \$3.7 billion; in 1945, 725 concerns: \$3.4 billions. The downtrend toward the final stages of the war reflected, of course, tighter and tighter controls on corporate earnings.

Elimination of excess profits taxation, together with an extremely rapid reconversion to peacetime production, made the profit line turn upward remarkably quickly in the post-war years. In 1946, 828 concerns made a shade under \$5 billion, an increase of 29.5 per cent over 1945. By the following year the earnings of 893 concerns had increased another 35.6 per cent to \$6.9 billion, and another 24.2 per cent increase in 1948 raised the earnings for 925 concerns to \$9.2 billion. (The percentage increases, for comparison, are only for identical concerns listed in the previous year.)

Although 1949 earnings for 957 corporations dropped to \$8.3 billion, the exchange predicted (at least, before the uncertainty of the current war crisis) that "a round \$10 billion of net income is not impossible in the not distant future."

« « » »

**TV Injects New Aspects In War Reporting** Shooting war finds the United States with a great new communications medium capable of bringing the hard facts of front line battle into millions of American living rooms. Thus far, of course, conventional radio, with its far-flung chain of trained correspondents, has far outdistanced its peacetime rival, television, in bringing early war news to anxious Americans.

But the potentialities of television war reporting are rapidly becoming apparent. Already, Americans sitting down to dinner are able to watch on their screens air-spied newsreels of GIs digging into foxholes a mere 48 or 72 hours earlier.

What influence this graphic fire-side war reporting will have on the folks on the home front is hard to say. However, communication's newest medium promises to make any war, localized or general, more



## What's your guess?

THIS GIRL IS—

- ☐ Doing psychic research
- ☐ Playing blind man's buff
- ☐ Guessing when Hiawatha starts

Even standing, she'll find it hard to tell the exact moment when the HIAWATHA starts. Velvety take-offs are characteristic of these famous Speedliners.

Is it because of diesel power? Partly—though the Olympian HIAWATHA between Chicago and the Pacific Northwest is pulled through the mountains by electric locomotives. Actually, many factors are involved including the skill of the engineer. Important, too, are the seasoned roadbed, heavy rail, expert maintenance and advanced car design which also contribute to the cushioned, silent ride.

Why don't you try the HIAWATHAS? Find out how restful travel on The Milwaukee Road's steel highway can be. V. L. Hitzfeld, General Agent Passenger Dept., Room 711, 100 W. Monroe St., Chicago 3, Illinois, Phone CEntral 6-7600.



# THE MILWAUKEE ROAD



personal and nearer at hand to millions of Americans than ever before.

“ “ ” ”

**Safety Records  
Improved In  
Industry In '49**

American workers were a lot safer in 1949 as compared to the previous year, according to reports to the National Safety Council. Thirty-eight of the council's 40 industry classifications reduced their frequency rates last year, and 28 reduced their severity rates.

The accident frequency rate for employees in all industries, based on the number of disabling injuries per million man-hours, was 10.14 in 1949, a reduction of 12 per cent from the year before. The communications industry again led the field by turning in the lowest employee frequency rate of 2.14, which represented an 18 per cent decline from 1948. Aircraft manufacturing was in second place with 4.25, followed by the electrical equipment industry with 4.83 and steel with 4.96.

Lumbering stayed at the bottom

of the frequency list with a 47.72 rate, but this represented a three per cent reduction. Although coal mining reduced the frequency of its accidents 10 per cent last year, it could not climb from the next to last position with a 41.48 rate. Mining other than coal was third from the bottom, just below marine transportation.

“ “ ” ”

**To Whom Does  
The U. S. Owe Its  
National Debt?**

A provocative question to liven up conversation on the 8:14 some morning might well be: "To whom does the federal government actually owe all those billions of dollars of nation debt?" The biggest chunk is not owed, as some might guess, to big banks and insurance companies, but to ordinary individuals whose providence accounted for \$69.5 billions of the total national debt at the end of 1949.

The second biggest block of U. S. Government securities, \$67 billions, was owned by commercial banks; the third biggest block, \$15.3 billions, was in the hands of the life

insurance companies. As a result of course, individuals received the largest interest payments from the government, a figure which, according to the Federal Reserve Bank of New York, came to \$1.7 billion in 1949, or about \$600 millions more than all commercial banks received in interest from the government.

## Here, There and Everywhere

(Continued from page 8)

ing rodeos held yearly in Fort Worth, Denver and other Western cities." Among the Chicago attractions will be the living-room cow-poke, "The Lone Ranger," and his radio-famous horse "Silver."

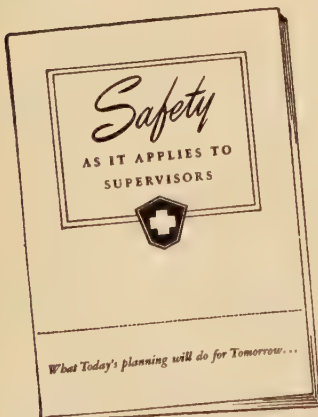
• **Airline Record** — All records for passengers and cargo flown by United Air Lines in the first six months of any year were broken by the company in the first half of 1950. In the period, United flew more than a million passengers and an estimated 650,000,000 revenues passenger miles for increases of 7½ and 3½ per cent, respectively, over the first half of 1949.

• **Poor Tax Trade** — A report issued by the Western Tax Council, Inc., of Chicago, discloses that on the average Washington collects \$7.46 in federal taxes from the taxpayers of each state for every dollar returned by the federal government to that state. "While the current feeling among many people is that Washington grants and aids are gifts from the Great White Father," the report exclaimed, "the truth is that the slice taken by the federal government for its own purposes is the greatest part of our tax burden."

• **Share Savings Program** — A unique program whereby factory employees can increase their earnings through the reduction of certain expense items is being conducted by the Nineteen Hundred Corporation, St. Joseph, Mich. The waste elimination program centers around several major expense items. Having established a standard, the company has agreed to share any savings made through cooperative efforts of the employees and the company on a straight 50-50 basis. The figures

(Continued on page 45)

# PLANT SAFETY



Our booklet "Safety as it Applies to Supervisors" is being used today by many progressive companies in their safety education programs. It is planned and produced by Marsh & McLennan's nation-wide staff of engineers. Write for your copy today.

## MARSH & McLENNAN

INCORPORATED

INSURANCE BROKERS • AVERAGE ADJUSTERS

Chicago New York San Francisco Minneapolis Detroit Boston Los Angeles Pittsburgh  
Seattle St. Louis St. Paul Duluth Indianapolis Portland Superior Cleveland  
Buffalo Columbus Phoenix Vancouver Toronto Montreal Havana London



# Invest in the MIDDLE WEST

Reviews of Middle-western Companies

By DANIEL F. NICHOLSON

SIXTY-FIVE years ago the Minneapolis-Honeywell Regulator Company's earliest predecessor placed on the market a simple device designed to add to the comfort of the home. The device was a crude thermostat called the "damper flapper," and it operated furnace dampers. Today more than ten million American homes enjoy heating regulated by one or more highly developed Honeywell devices, and homes represent only about one-half the company's market—the other half being commercial buildings and industry generally.

Minneapolis-Honeywell is the largest producer of automatic heat-regulating and temperature control apparatus. In addition the company manufactures products that regulate or record humidity, flow and pressures. The market in both the residential and industrial fields is expanding rapidly—in the residential field because of the vast demand for new housing and the increasing use of stokers, oil burners and gas furnaces; in the industrial field because of the savings and improved quality made possible through the use of automatic controls and the urgent need for cost reductions as labor costs rise. Last year the company's sales reached a record peacetime high of \$72,754,599 as compared with \$57,600,000 in 1948.

## Varied Applications

Applications of Honeywell devices are almost limitless. A prosaic application is the "skunk control" for chicken farmers, consisting of a time switch, motor and pulleys that close the hen house doors at night when nocturnal skunks are prowling, and open them in the morning. By contrast, a catalytic oil cracking unit in Texas uses more than a thousand instruments,

most of them made by Honeywell's Brown Instrument Division. An amusing anecdote illustrates the possibilities when imagination and Honeywell instruments are combined. W. J. McGoldrick, Honeywell's vice president in charge of engineering, was annoyed by his dog's habit of barking at 5 o'clock each morning. He set up a microphone, a Honeywell Moduflow amplifier and a valve, and linked them to a lawn sprinkler. The next morning when the dog barked it got a thin stream of water in the face. The barking habit was cured in one night.

## Rapid Progress

Progress has been rapid in Honeywell's field. More than half of the company's sales in 1949 was in products newly designed or re-designed since 1939, and this decade included World War II when research on standard lines was restricted. The company has a staff of more than 500 engineers, and a large budget for research.

Among recent new devices or improvements have been a line of electronic controls for commercial air conditioning and heating systems, specialized controls for radiant panel heating, a complete line of electronic gas and oil burner controls, a line of plug-in controls that can be installed by the home owner, and an electro-hydraulic heat regulator for hand-fired furnaces, consisting of a thermostat and a motor which includes a pump about two inches long.

In July of this year a new line of instruments especially designed for central power station operations was introduced. The new line, the company said, marked its first big-scale program for producing meters, transmitters, conductivity and other types of recorders, and more than a dozen other new instrument designs for steam plants



## One La Salle Street

Here, at the center of Chicago's financial, life insurance, legal, and commercial activities, skill and expert scientific planning have created a modern business setting of outstanding distinction. The many prominent tenants of this great building appreciate not only this factor of central location, but also the high standards of service maintained for their comfort and convenience, making One La Salle Street an address of prestige. For all who seek downtown office space, the special advantages afforded at One La Salle Street are worthy of first consideration.

**L. J. Sheridan & Co.**  
**Agents**

One La Salle St., Chicago - ANdover 3-7457



## "For Distinguished Service"

WITH this Citation the Sixth Service Command of the United States Army commended the Chicago Association of Commerce and Industry for the work which the Association did for the nation and for Chicago area business during World War II. This work was concerned with government procurement, manpower utilization, priorities, price control, war financing, renegotiation, and many other problems involved in mobilizing the area's vast industry for war.

Again, today, the Association is helping its members with the problems arising from the current critical international situation. It will continue to keep abreast of developments affecting business and will aid its members in keeping abreast of them.



### The Chicago Association of Commerce and Industry

One North La Salle Street

FRanklin 2-7700

and electric distribution. "Our extended expansion into the central stations field follows a two-year survey of its requirements, particularly in advanced power generating," said Charles W. Bowden of Honeywell's Brown Instrument Division. The new line is designed for more efficient operation and for obtaining permanent operation records.

Prior to 1940 the company made no aviation equipment, but its Aeronautical Division is now of such importance that last year a plant with more than 100,000 square feet of floor space was purchased in Minneapolis to house it. Honeywell got into the aviation equipment business through work on cabin comfort control. The company devised an electronic automatic pilot that reduced by 80 per cent the time necessary to hold an airplane on a bombing run, and increased bombing accuracy 40 per cent.

The Aeronautical Division subsequently added an electronic fuel gauge that measures gasoline in pounds rather than gallons, a "formation stick" that is linked to the automatic pilot to facilitate wing-to-wing flying in rough weather, and an electronic regulator for engine superchargers.

#### Military Aviation Use

While some Honeywell devices are being used on commercial aircraft, the company's work in aviation is largely for military application. The annual report for 1949 declared that the company currently is engaged in engineering projects "involving the automatic control of important functions of the newer type of jet and propeller driven aircraft, the power plants for these planes, and the automatic navigation of aircraft and guided missiles." The report added that a substantial part of the aeronautical business is for the United States government and therefore is subject to renegotiation and other profit limitations.

Acquisitions of a number of going concerns contributed importantly to the company's growth. The first of these came in 1927 when there was a merger with the Honeywell Heating Specialties Company, founded in 1906, and the present corporate title was adopted. In 1931 the Time-O-Stat Co., Elkhart, Ind., manufacturer of line



voltage controls, was purchased. In 1934 the Brown Instrument Company, Philadelphia, was acquired, and in 1937 the National Regulator Company of Chicago. Early last year the 120-year-old H. Bel-field Company, Philadelphia, manufacturers of control valves of a type widely used in connection with products made and sold by Honeywell's industrial and commercial divisions, was acquired. The Bel-field Valve Division's engineering department has been expanded and a broader line of valves will be produced. Main plants and the executive offices of Minneapolis-Honeywell Regulator Company are located in Minneapolis. Other factories are operated in Philadelphia, Chicago, Wabash, Ind., Toronto, Canada, and Blantyre, Scotland. An addition of 60 per cent to the floor space of the Brown Instruments Division plant in Philadelphia was completed last year.

Honeywell's sales organization has been expanded sharply since the end of World War II. Last year, 17 new branches were opened, bringing the total to 84, including eight in Canada. Sales in Canada are consolidated with the company's domestic business, but exports to other countries are handled through wholly owned but unconsolidated subsidiaries and through distributors or direct shipments from the United States.

The foreign subsidiaries as a group operated at a loss of \$27,404 in 1949. The plant in Scotland, established in 1948 in a leased building, had not reached a profitable basis in 1949, but improvement was expected in 1950 with increased production schedules.

### Building Boom

The new record in peacetime sales established by Honeywell in 1949 reflected primarily the record volume of residential construction and the ending of fears of shortages in oil and gas fuels. The company had difficulty in keeping pace with the demand for domestic heating controls. The high volume of construction of schools, hospitals, office buildings and large commercial structures created a heavy demand for heating and air conditioning controls, and sales of these lines were at a new peak. A tapering off in industrial plant

expansion and modernization was reflected in a small decline in sales of industrial recording and controlling equipment.

Earnings reached a new high in 1949 at \$8,021,984, equal to \$6.05 a share on the common stock outstanding at the end of the year, after providing for preferred dividend requirements. This compared with net of \$5,942,008, or \$4.49 a share, earned in 1948.

### Unbroken Profit Record

In each year since the merger of 1927, Honeywell has earned a profit and paid dividends. A comparison of net sales, net income, and earnings per share of preferred and common stock, for the last six years, follows:

	Net Sales	Net Income	*Earn. per Share	
			Pfd.	Com.
1949	\$72,754,599	\$8,021,984	\$72.93	\$6.05
1948	57,600,527	5,942,008	54.02	4.49
1947	60,596,021	6,693,509	60.85	5.10
1946	45,940,081	5,119,143	46.54	3.87
1945	84,392,427	3,436,637	40.10	2.48
1944	89,306,433	3,239,676	37.80	2.36

\* Based on the following shares:

	Pref.	Common
1949	110,000	1,267,440
1946-8	110,000	1,243,000
1944-5	85,700	1,243,800

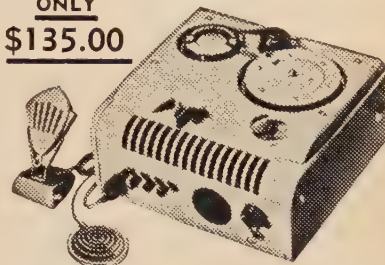
Stockholders of the company approved at a meeting on March 28, 1950, a reduction in the par value of the common stock to \$1.50 a share from \$3, and a two-for-one split of the stock. Previously the common had been split two-for-one in March, 1944, and three-for-one in March, 1936. Prior to the 1950 split, dividend payments this year consisted of an extra of 75 cents on January 3 and a quarterly payment of 62½ cents on March 10. An initial dividend of 40 cents a share was paid on the new stock on June 10. Payments in other recent years were: 1949, \$2.62½; 1948, \$2.50; 1947, \$2.00; 1946, \$1.80; 1945, \$1.25. The stock is listed on the New York Stock Exchange.

The conservative dividend policy maintained despite high earnings, and a close control over inventories, enabled Honeywell to reduce its funded debt and strengthen its cash position in 1949. On October 31, 1949, \$2,500,000 of the 2.85 per cent debentures originally issued in 1948 were retired. Remaining funded debt consists of \$5,000,000 of the debentures, due March 15, 1963. Outstanding stock consists of the 110,000 shares of \$100 par value 3.20 per cent pre-

*This 'Secretary' never makes a mistake... and cuts your office costs, too!*

### the great, new Webster-Chicago DICTATION MACHINE

ONLY  
**\$135.00**

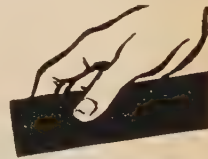


For dictating and transcribing correspondence, inter-company messages, sales instructions, production and inventory reports, important documents. Especially valuable at group conferences... picks up and records all voices. Portable model... easy to carry from office to office... or when making city and out-of-town trips.

### FREE DEMONSTRATION

**ELECTRONIC SUPPLY CORP.**  
309 S. Western Ave., Chicago 12, Ill.  
I am interested in a FREE DEMONSTRATION of the Webster-Chicago Dictation Machine.

Name \_\_\_\_\_  
Title \_\_\_\_\_  
Firm \_\_\_\_\_  
Address, City \_\_\_\_\_



## Constructive ADVERTISING

**Planned**

**Created...**

**and "Put to Work"**

## For Better Results

If you are not satisfied with the results you are getting from your present advertising, we welcome the opportunity of discussing your problem with you. Our competent and experienced staff can develop a program, complete in every phase, on any product or service that does not compete with our present clients.

Recognized by: ANPA • APA • PPA • ABP

*The Advertising Corporation*

T. W. Merrill, President  
176 West Adams St., Chicago 3  
Phones—Central 6-3313—3472



# THERE ARE GOOD REASONS WHY INDUSTRY IS MOVING TO KENWOOD INDUSTRIAL DISTRICT



RAYNER  
LITHOGRAPHING  
CO.  
Offset Lithography



WARD STEEL COMPANY  
Distributors of steel springs



INTERNATIONAL ROLLING MILL  
PRODUCTS CORP.  
Steel fabricating and warehousing

For full particulars  
write or call

These and other progressive firms are moving to Kenwood because it is a completely facilitated district for industry. It is served by two Belt Railroads, street car and bus transportation to the door, excellent labor supply, ample provision for all utilities. You too can have a new plant built to your exact requirements and financed on either a purchase contract or long term lease.

## J. H. VAN VLISSINGEN & CO.

RA ndolph 6-4042

120 South La Salle Street, Chicago 3, Illinois  
PHIPPS INDUSTRIAL LAND TRUST — Owners

ferred, and 2,534,880 shares of \$1.56 par common. The company sold 24,300 shares of the preference stock in 1946 and added the net proceeds of \$2,480,000 to working capital.

Current assets on December 31 last, totaled \$41,498,723, including cash \$7,011,571, U. S. Government certificates of indebtedness \$5,000,000, trade receivables \$9,662,604 and inventories \$19,343,491. Current liabilities totaled \$10,939,785. Although sales volume was up nearly 25 per cent in 1949, inventories increased only moderately, from the \$18,621,127 at the close of 1948.

Fixed assets were carried at \$12,425,756 after deducting depreciation reserves of \$6,076,737. Total assets amounted to \$55,634,784.

### Labor's Finishing School

(Continued from page 20)

may come up with different solutions, but the discussion has taught them how to think.

Throughout the manual runs the theme that anything that tends to make union officers and members more aware of their responsibilities helps labor relations. Also emphasized is the fact that democratic American trade unionism depends on the thoughtful participation and cooperation of every group and individual affected.

### Amazing Results

The study course has had some amazing results. There is, for example, the case of a steel workers local vice president in a small Pennsylvania community who became a bank vice president. A self-centered, narrow individual at the outset, the course developed in him an interest in child welfare. His work for local children became outstanding and, when he displayed a keen acumen for financing children's organizations, he became a natural selection for the post.

Management's aims and goals are set out objectively in the manual, as well as management's weaknesses. Students are told quite candidly that a company's bargaining position is vulnerable when it is in a weak financial position and cannot

(Continued on page 41)





## INDUSTRIAL DEVELOPMENTS

IN THE CHICAGO AREA

INVESTMENTS in industrial plant facilities in the Chicago Industrial Area during July totalled \$52,194,000. During July, 1949, total investments were \$7,813,000. These developments included expenditures for the construction of new plants, additions to existing industrial buildings, and the acquisition of land or buildings for industrial purposes.

Youngstown Sheet and Tube Company will construct four open hearth furnaces at its Indiana Harbor Works in East Chicago, Ind. Total capacity of the four furnaces will be in excess of 500,000 net tons annually and will increase the production of the plant by approximately 35 per cent.

National Biscuit Company will construct a plant at South Kedzie, 73rd and 75th streets. The plant will consist of a bakery, which will contain 800,000 square feet of floor space, and storage bins for flour.

American Cyanamid Company has purchased 30 acres of land in East Chicago from the Grasselli Division of E. I. DuPont de Nemours and Company. The company will construct a synthetic cracking plant on the site.

Argonne National Laboratory, located on a 3,733 acre reservation in Du Page County near Lemont, has a large construction program under way. Currently, construction is being completed on a group of naval reactor buildings, designed to explore the problem of harnessing atomic energy for the propulsion of naval vessels. Other facilities are being constructed for research into other types of reactors.

Zenith Radio Corporation, 6001 W. Dickens, has purchased a cabinet plant at 1500 N. Kostner ave-

nue. The plant contains 185,000 square feet of floor space.

Reynolds Metals Company has purchased an aluminum rolling mill in McCook, Ill. The plant was built during the war by the Aluminum Company of America for war production purposes. After the end of the war, the plant was leased by the War Assets Corporation to the Reynolds Metals Company.

St. Charles Manufacturing Company, St. Charles, Ill., will construct a new plant. Victor Charn, architect.

General American Transportation Corporation, 135 S. LaSalle street, is constructing a 60,000 square foot addition to its plastics unit in East Chicago.

Joslyn Manufacturing and Supply Company is constructing an addition to the warehouse building adjacent to its plant at 3700 S. Morgan street. The company, which also operates a plant in Franklin Park, produces pole line equipment.

Portable Electric Tool Company, 320 W. 83rd street, is constructing a 36,000 square foot addition to its plant. The company produces electric drills.

American Can Company is adding 18,000 square feet of floor space to its plant in Maywood.

General Detroit Corporation, Detroit, Mich., has purchased a building containing 30,000 square feet at 538 N. Western avenue to be operated as a branch plant. The company produces fire extinguisher equipment.

Thompson Wire Company, Franklin Park, is expanding its plant.

Admiral Die Casting Company, 310 West 83rd street, a newly organized company, is constructing a



300 W. Randolph St.

FRanklin 2-1160

### HEAT TREATING

FRED SNOW STEEL TREATING CO.

1954 W. Kinzie St.

Ask for Mr. LeRoy—Tel. SEeley 3-2662

### B. E. WEBER CO., INC. CASTERS and WHEELS

Industrial and Warehouse Trucks  
1151 S. Mayfield Ave. Chicago 44  
ESTebrook 8-7040

Industrial	Institutional
<b>GENERAL CONTRACTORS</b>	
Additions, Remodeling, Alterations	
<b>E. L. Archibald Co. Est. 1916</b>	
79 W. Monroe St.	FRanklin 2-0274
24 Hr. Telephone Service	Commercial
Residential	

### COUNSELING & TESTING

Executive and Sales Personnel

**Leroy N. Vernon, Ph.D.**  
INDUSTRIAL PSYCHOLOGIST

**THE PERSONNEL LABORATORY**  
LA SALLE-WACKER BLDG. • CHICAGO

### FLOOR SERVICES, INC.

537 S. Dearborn Street  
Chicago, Ill. — WEBster 9-4547

—FLOORS—

ALL TYPES — CLEANED AND WAXED  
CONCRETE—WOOD FLOORS DEGREASED  
Job or Contract — Fully Insured

### BATTEY & CHILDS

ENGINEERS - ARCHITECTS

Complete Service for Industry

231 So. LaSalle St., Chicago 4, Illinois

SEeley 3-2765

### THE HAINES COMPANY CONTRACTORS

FOR

VENTILATION & AIR CONDITIONING  
DUST & FUME REMOVAL SYSTEMS  
MATERIAL CONVEYING  
SHEET METAL FABRICATORS  
WELDING

1931 W. LAKE ST. • CHICAGO 12





Warehouse being constructed by R. Cooper, Jr., Inc., at 4500 W. 47th street in the Central Manufacturing District

one-story, 25,000 square foot plant. The company will produce aluminum castings.

**Illinois Condenser Company**, 1616 N. Throop, will construct two buildings adjacent to its present plant, which will contain a total of approximately 10,000 square feet of floor area. The company makes capacitors for the radio and electrical industries.

**Fox Valley Box Company**, Geneva, Ill., is constructing a new plant near St. Charles. The building will be one-story, containing 17,000 square feet of floor area. The company manufactures corrugated boxes.

**Reliance Varnish Company**, 4501 W. Haddon street, is constructing an 8,000 square foot addition to its plant.

**Sterling Greeting Card Company**,

3923 W. Dickens avenue, is building a 15,000 square foot plant at 1142 N. Campbell avenue.

**Friedrich Binding and Embossing Company**, Joliet, is constructing a 5,000 square foot plant.

**Air Art Finishing Company** has purchased the two-story factory building at 1414-20 W. McLean avenue. The company does metal enameling and lacquering. Hogan and Farwell, Inc., brokers.

**Standard Unit Parts Corporation** has purchased a two-story building at the corner of Parnell avenue and 35th street.

**Ka-Mo Tool Company**, manufacturer of earth-boring equipment, has purchased the one-story building at 1845 S. 55th avenue in Cicero. The building contains 14,500 square feet of floor area.

## Civilian Defense Planning

(Continued from page 15)

sonnel protection has been limited to a survey by Army engineers two years ago of natural caves and mines, and a design contract for two "typical" plants—one a chemical works, and the other a "dry manufacturing" installation. Dispersion, rather than holing-in, has been the keynote of industrial defense thinking by NSRB and the Army.

One of the tipoffs to the accelerated planning program is the large number of courses and seminars held to acquaint top people in local governments with the necessity for immediate planning now. The U. S. Public Health Service has begun training state and local health officers in the dangers of radioactivity. Although the agency says the program is not connected with civil defense planning, it undoubtedly will make health officers conscious of the precautions to be taken against radiation, whether from medical radioisotopes, X-ray machines, or a possible atomic bomb.

Courses in radiological monitoring are being given by the Atomic Energy Commission at its Brookhaven and Oak Ridge Laboratories and at the University of California. They are designed to help in protecting the lives of firemen, policemen, and rescue workers who will risk their own lives to save others.

### Hospitals Informed

Administrators of private and government-owned hospitals were recently given an inkling of what to expect and what is expected of them in an atomic bomb attack. As students in a two-week "inter-agency institute for hospital managers" sponsored by the Army Medical Department in Washington, they heard Dr. Jack Masur and Dr. Norvin Kiefer discuss catastrophe planning for peace-time and wartime.

Dr. Masur, director of research facilities planning of the U. S. Public Health Service, made a sharp distinction between peace-time disasters and the potentialities of full-fledged atomic war. Because peacetime catastrophes are relatively rare in the United States, he



## NEW EQUIPMENT calls for SPECIALIZED SERVICE

Boiler and Machinery Insurance is a practical necessity, especially as one damaged machine or boiler may hold up an entire assembly line.

Boiler and Machine inspection service is provided by engineers under Moore, Case, Lyman & Hubbard's direction. They cooperate with your staff in preventing accidents and breakdowns. Our engineers have a wide range of experience in detecting potential hazards and suggesting corrective measures.



**MOORE, CASE, LYMAN  
& HUBBARD**

175 W. JACKSON BOULEVARD, CHICAGO 4  
PHONE WABASH 2-0400

**CHICAGO'S OLDEST INSURANCE AGENCY**



pointed out, not many hospitals have had to face the problem of ten or fifteen-fold increase in load resulting from a nearby explosion or fire.

The federal official specifically urged hospital administrators to work out a plan, put it on paper, and make copies available to top personnel. Drills and rehearsals should be held, he warned. This preparation would, however, only be a minor hint of the colossal job the hospitals might face should war come.

### Frightening Facts

Dr. Kiefer, chief of the Health Resources division of the NSRB and a civilian defense expert in World War II, gave the hospital men an even more frightening taste of wartime disaster planning. In case a U. S. city the size of Hiroshima should be bombed, he said, it would take a train of 200 boxcars to bring in medical supplies to treat and care for the casualties for the first week. All medical stocks in the city would be used up within the first eight hours.

Contrary to much material written on the subject, he added, the problem in World War III would not be so much the treatment of radiation burns, as it would be the stupendous task of handling immediate casualties. At least half the victims would have to be removed from the debris on stretchers and later, after first aid, would have to be sent to hospitals in ambulances or other transport.

Dr. Kiefer is opposed to burrowing hospitals underground. No one, he believes, knows for certain how safe an underground hospital can be. Instead, he suggests the building of hospitals on the outskirts of cities and in the country. Undoubtedly, there would be two immediate results of an atomic bombing on the civilian population: (1) people would suffer from lack of essential utilities — water, electricity, gas, sewers, and (2) there would be incredible confusion.

To cut down confusion is the aim of the plans now being shaped up for presentation to the public. The public will be told the truth. It will be anything but pleasant, but the planners believe the facts should be known by all.

The NSRB is considering, although the proposal has not been

mentioned publicly, the establishment of regional stockpiles of medical supplies. They would be warehoused in local hospitals or other public buildings and controlled by the state or local authorities. The proposal is based on the contention that a bombed city would have to depend upon outside help and medical supplies should therefore be available in other cities within a region.

### Penalty Of Efficiency?

Federal planners also feel that our efficiently-gearred distribution system which prevents a build-up at any point in the supply "pipeline" may be the Achilles heel of civilian defense. Distributionwise, we live from hand-to-mouth. As an example, an NSRB survey recently showed that outside of the three or four stretchers on hand in each hospital, there are only 1,651 more in all trade channels in this country.

Hospital managers were cautioned not to look to the corner drug store or the local wholesale drug firm to augment their supplies in an emergency. These channels absorb only 10 percent of the medical supplies produced in the United States. Hence, the argument for substantial stockpiling.

A plan is being readied, to be put into effect by the American Red Cross, to teach first aid to at least 20,000,000 Americans. The idea is that if there was a certain amount of know-how among the population, considerable first aid could be administered personally, or within the family group and recourse to doctors and hospitals would thus be minimized.

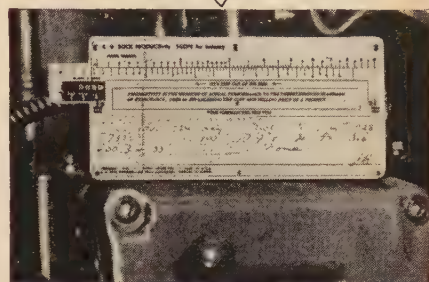
Civilian defense is essentially passive defense. For planning purposes, the NSRB's Office of Civilian Mobilization groups the "civil defense" measures into 4 categories:

(1) Measures to avert an enemy attack, such as aircraft observer systems, camouflage, black-outs, etc. in which civilians may be called upon to assist.

(2) Advance measures for minimizing effects of enemy attack—i.e. civil air raid warning, dispersion or relocation of facilities, and the prior evacuation of children and personnel not essential to the war effort.

(3) Measures to repair the damage—i.e. medical and health serv-

alerts both the  
OPERATOR  
and  
SUPERVISION  
to job performance



### THE R. G. BOCK PRODUCTIVITY-SCOPE

employs a psychological force for increasing productivity and Labor's earnings

Makes Labor's hours more productive and Supervision more effective by bringing below standard performance into focus for corrective action while a job is running. Write for descriptive illustrated folder.

### R. G. Bock Engineers

Industrial Management

1951 Irving Park Road, Chicago 13, Ill.

Everything  
ELECTRICAL!



FOR  
QUICK  
SERVICE

★  
Over  
10,000 Items  
In Stock  
for  
Factories  
Stores  
Offices  
Contractors  
Construction  
Repairs &  
Maintenance  
★

Call... ANdover 3-1500

15 Trunk Lines • Quick Service

**E FENGEE**  
ELECTRICAL SUPPLY CO. INC.

663-671 W. Washington Blvd.  
Chicago 6, Illinois



IMPROVES EMPLOYEE RELATIONS

**CONSULT:**  
First Federal On  
**PAYROLL  
SAVINGS  
PROGRAM**

For Your  
Employees

FI  
6-5300

# First Federal Savings

AND LOAN ASS'N

1

SOUTH DEARBORN

## DE LEUW, CATHER & COMPANY

Consulting Engineers

Transportation, Public Transit and  
Industrial Problems

Industrial Plants	Grade Separations
Railroads	Expressways
Subways	Tunnels
Power Plants	Municipal Works

150 N. WACKER DRIVE,  
CHICAGO 6, ILL.

## HOT TIN DIPPING

Specializing in quantity production of industrial fabricated parts in steel — copper — brass — Hotel — Restaurant — Dairy — Bakery equipment. Sheets — bars — tubes — pipe — etc.

Lead & special mixture coatings.

Operating largest facilities in the industry.

**C. DOERING & SON, Inc.**

LAKE & LOOMIS STS.  
MONROE 6-0921

ices, decontamination, firefighting, removal of debris and salvage.

(4) General measures — research, development, legislation, organization, training, etc. in connection with atomic defense.

First of all, 100 percent security is not possible. To that, all planners agree. The NSRB says that under present conditions attempts to achieve absolute security would result in a garrison state. As one official puts it, if too much of our national effort is expended for military and civil defense purposes, "the very liberties we are trying to make secure will themselves be endangered."

### Expense Must Be Shared

NSRB says defense costs must be shared by all levels of government—federal, state and local. The federal government has the important obligation of developing and furnishing to the states the information, advice and guidance which they need to develop sound plans for their communities, the NSRB states. In practice, however, it is admitted that no state to date has laid out enough money to set up any worthwhile planning units. Interest on the local level has been practically nil.

Federal planners argue that much of the planning literature (such as bulletins sent to governors and state civilian defense agencies) is not being read. To this the hospital administrators reply that because Washington has cried "wolf" so often to get action on

inconsequential matters, few people pay much attention to anything that comes out of Washington.

Because of the step-up in planning the Atomic Energy Commission report on "civilian defense against atomic warfare" may be released. The report was filed with the AEC over a year ago, and, since then, has been regarded as too grisly reading for the public.

Washington planners fear that the attitude of local officials and the population generally will necessitate action by the federal government in such matters as stockpiling of medical supplies. The local administrators on the other hand feel that if Washington had been more truthful with the local people, they would have acted on the federal planners' advice.

Some feel that Uncle Sam should set the example. For instance, federal planners want local hospitals to stock up on medical supplies, yet federal hospitals are prevented by law from having on hand more than a 60 or 90 days' supply of any item.

Even after the planning program now under way is completed, the NSRB believes that it will not require the establishment of a large federal organization to insure adequate civil defense. It is laying the foundations for such a federal agency, however, by enumerating what the new agency will be responsible for prior to mobilization.

Meanwhile, civilian defense

(Continued on page 46)







# TRANSPORTATION and TRAFFIC



**T**HE Interstate Commerce Commission has announced that it will permit the suspended increased less carload rail rates and minimum charge in Official Territory to become effective July 25, 1950. The adjustment will increase rates on less carload exception rated traffic to the basis applicable on classification rated traffic and will boost the \$1.43 flat minimum charge to \$2.00. The increased rates and minimum charge were published to become effective June 19, 1950, but were suspended for a period of 35 days to allow the commission time to study the effect of the proposed rates. The new scale of rates is designed as a substitute for the rate adjustment proposed by the carriers in Docket No. 29770 now pending before the commission and is the result of negotiations between the railroads and committees of the National Industrial Traffic League. The Docket No. 29770 proceeding, which the carriers have now requested permission to withdraw, provides for an increased scale of rates on less carload traffic in Official Territory, a minimum charge of \$2.25, a minimum rate of \$1.00 when pick-up or delivery service is performed, and a minimum weight of 25 pounds for each piece or package of freight.

**Motor Rate Hike Postponed:** The Central States Motor Freight Bureau was granted authority from the Interstate Commerce Commission to postpone for 90 days, to September 21, 1950, the effective date of a motor rate increase published to become effective in Central Territory on June 22, 1950. The proposed increase was to be applied on shipments under 5,000 pounds and would have raised the rates on this traffic to a basis 10 per cent plus 20 cents per cwt. over the basis applicable on shipments over 5,000 pounds. The same increase was

filed to become effective late in 1949, but was suspended by the Interstate Commerce Commission. The carriers refilled the increase when the Commission failed to complete its investigation within the seven months statutory suspension period. Subsequent to the refiling of the tariffs, the proposed report of I.C.C. Examiner Tobias Naftalin in the suspension proceeding was released recommending that the commission find the proposed rate increase to be unjust and unreasonable. It was this report that prompted the carriers to postpone the effective date of the refilled increase.

**Illinois Commission Approves Express Rate Increase:** An increase in first and second class express rates within Illinois was approved by the Illinois Commerce Commission and became effective June 30. First class rates were increased 10 per cent and second class rates were boosted to a basis of 75 per cent of the increased first class rates. The same increases became effective April 18, 1950, on interstate traffic.

**Increased Joint Line Minimum Charge Suspended:** The Interstate Commerce Commission has suspended an increase in the joint line motor carrier minimum charge applicable on traffic between points in Trunk Line and New England territories, on the one hand, and points in the Chicago suburban area, on the other hand, published in tariffs of the Eastern Central Motor Carriers Association to become effective June 21, 1950. The proposed minimum charge would be \$3.00 when the traffic moved over the lines of two carriers and \$3.50 when the traffic moved over the lines of more than two carriers. In a petition for suspension of the proposed minimum charge, The Chicago Association of Commerce



## Route it via **BURLINGTON**

### *Fast. Dieselized* **FREIGHT SERVICE**

*between*

CHICAGO	●
OMAHA	●
LINCOLN	●
DENVER	●
ST. PAUL	●
MINNEAPOLIS	●
KANSAS CITY	●
ST. JOSEPH	●
ST. LOUIS	●
ROCK ISLAND	●
MOLINE	●
DAVENPORT	●
SIOUX CITY	●
DES MOINES	●
CASPER	●
CHEYENNE	●
CALIFORNIA	●
UTAH	●
WASHINGTON	●
OREGON	●
SOUTHWEST	●

**Let us serve you!**

H. F. KOENIG, General Agent  
L. R. SCHRAMM, General Freight Agent  
105 W. Adams St. • WA 2-2345



*Everywhere West*



and Industry stated that it would be unduly prejudicial to shippers and receivers located in the Chicago area, and would also result in instances where the minimum charge would be substantially lower for a longer haul than for a shorter haul over the same route. The suspended charge has been assigned by the commission as I. & S. Docket No. M-3412, Minimum Charge, L.T.L.—Chicago Suburban Area East.

**Charge for Inability to Deliver "Order" Shipments Suspended:** The Interstate Commerce Commission has suspended tariffs published by the Central States Motor Freight Bureau naming a charge of five cents per cwt., subject to a minimum charge of \$2.00 and a maximum charge of \$6.00, when a carrier is unable to accomplish delivery of a shipment due to the inability of a consignee to surrender the original "Order" Bill of Lading. The proposed charge was to have become effective July 14. The commission has assigned the matter for investigation under Docket No. I. & S. M-3435.

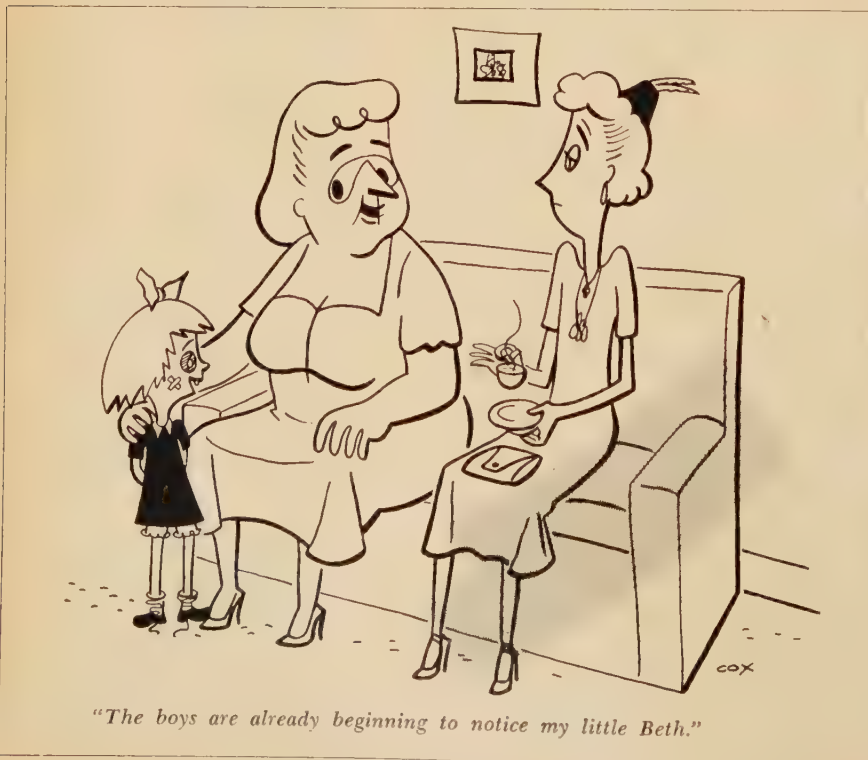
**I.C.C. Issues Report In Ex Parte No. MC-43:** The Interstate Commerce Commission, on July 5, released its report in Ex Parte No. MC-43 — Lease and Interchange of Vehicles by Motor Carriers. The commission had previously released

its order in this same proceeding setting forth rules and regulations to be followed by motor carriers in leasing and interchanging of motor vehicles among carriers and the renting or leasing of vehicles to shippers. The commission found that violations of its safety rules and of the act were largely due to the lack of reasonable regulations which would require assumption of legal responsibility on the part of carriers and proper control of the operations of leased equipment. One of the rules provides that unless such service is specified in their operating authority authorized carriers are prohibited from renting equipment with drivers to non-carriers (shippers) and shall not directly or indirectly assist such non-carriers to select or obtain drivers for equipment rented to them. Under this rule carriers may rent or lease equipment to shippers without drivers, but may not directly or indirectly assist shippers in selecting or obtaining drivers for such equipment. The order is to become effective September 18, 1950.

**House Committee Favorably Reports Forwarder Bill:** The Interstate and Foreign Commerce Committee of the House has reported favorably with amendments the freight forwarder bill, H. R. 5967. Under the bill as originally pro-

posed, freight forwarders were declared to be common carriers and authorized to enter into contracts with motor common carriers for transportation of property at rates and charges agreed upon between the forwarder and motor carrier. The amendments recommended by the House Committee provide that in case of line haul transportation between a concentration point and breakbulk points in truckload lots where such line haul transportation is for a total distance of 453 highway miles or more, such contract shall not permit payment to common carriers by motor vehicle of compensation which is lower than would be received under rates or charges established under Part II of the Interstate Commerce Act. The Chicago Association of Commerce and Industry opposed the legislation contending that it was not in the public interest to permit freight forwarders to pay charges lower than the tariff published rates paid by other shippers. While the amendment in effect provided for such payment on shipments moving more than 450 miles between concentration and breakbulk points the amended bill, as reported, would still leave the forwarders free to negotiate with motor carriers on assembling and distribution traffic and on line haul traffic moving for distances of less than 450 miles.

**Rails File Uniform Classification and Rate Scales:** Pursuant to the request of the Interstate Commerce Commission, the railroads have filed suggested rate scales and an exhibit containing tentative ratings under consideration by the carriers' classification committees for use in connection with proposed class rate scales. Under the decision of the commission in I.C.C. Docket No. 28310, the carriers were required to prepare a uniform classification for nationwide application. In Docket No. 28300, heard concurrently with the classification case, the commission ordered as an interim adjustment an increase of 10 per cent in the class rates within Official Territory and a reduction of 10 per cent in the class rates in Southern and Western Territories and between these territories and Official Territory. Since these decisions were made, the general level of railroad rates has been increased



"The boys are already beginning to notice my little Beth."



nder Ex Parte Nos. 162, 166 and 168. The proposals now being made are for the purpose of establishing a new scale of class rates to be used in connection with the uniform classification.

## Labor's Finishing School

(Continued from page 34)

ford a long strike, when full employment exists generally and labor is scarce, when it faces stiff competition and cannot afford a work stoppage, and when inventories are low, investments are large and fixed, or the product is a perishable one. However, these points are raised to inspire a group discussion of how by irresponsible action, a union might seriously cripple a firm under such circumstances.

As the U. of C. research team delved into union and plant situations, they found a workers' education program was most difficult to carry out in isolated areas where organization is still novel and a bit frightening to both management and labor. Here, untrained local leaders frequently call in outside help to handle grievances and negotiations, creating added headaches for management.

To bring modern trade union concepts into those areas and to train local officers to handle their own problems, the home study idea was developed. Division 14 of the Communication Workers of America (CIO) is already working on a "pilot" home study course.

### Correspondence Course

This course contains test sheets to be filled in and sent to the university home study department for grading. If the course is successful, the international union will require all local officers to participate. Similar tailor-made courses can be made available to other unions or companies.

Another novel program is the six-month officers' training school in which local leaders from 12 Chicago industries are participating. It was started this January when the need was found for more intensive training than in the usual summer institute. Students meet one evening a week and on Saturday mornings. They discuss actual

shop problems, and each student has a project in which he works through a problem in his own local—grievance, education, community relations, or membership-participation.

An example: One girl student was amazed when the evening's "membership-participation" discussion turned to the matter of how to make union meetings more interesting. "What do you mean?" she queried. "Do they allow you to have discussions in your union?" She left the meeting determined to

make her own local more responsive to the wishes of its membership.

Professor Liveright sums up its objectives this way: "Our goal is to turn out union officers who represent their members better, handle membership problems more democratically, and have a better understanding of how unions fit into the economy of the country and of their own community."

On the other hand, the project may well solve some of management's own problems, as well.

## WHERE IS IT?



No matter how unusual the product or service you need, the chances are the Red Book with Yellow Pages can help you find it in a very few minutes. This handy reference guide lists thousands of products and services, under easy-to-locate headings, along with the names, addresses and telephone numbers of local dealers.

Suppose, for instance, you're looking for someone to repair your screens. Simply open your Red Book, find the heading "Screens — Window, Door, etc.," run down the list, and pick out the concern you want. That's all there is to it.

Use the Red Book, too, when you want to locate —

- The address or telephone number when you know the firm's name . . . or the name when you know only the address.
- Local dealers for nationally advertised services or trademarked products.
- Manufacturers or wholesalers when you wish to buy in large quantities.
- Business or professional people with common surnames, such as Smith or Jones. The classified will save your time and help you avoid mistakes.

LOOK IN THE **RED BOOK**

**CHICAGO'S CLASSIFIED TELEPHONE DIRECTORY**

OUTSIDE CHICAGO SEE YELLOW PAGES IN LOCAL DIRECTORY

with  
**YELLOW PAGES**





# New Products

## Non-Fogging Mirror

Bathroom cabinets featuring non-fogging mirrors have been introduced by the Charles Parker Company, Meriden, Conn. The mirrors have built-in electric heaters made of electrically-conductive rubber which warm the glass to 98 degrees, thus offsetting the condensation of moisture-laden steam. Using about the same amount of current as a 60-watt bulb, the heater is turned on and off with a switch mounted in one corner of the mirror.

## Transparent Car Visor

The Vision-Visor Corporation, 831 S. Wabash Ave., Chicago 5, has come up with a new type of automobile visor which contains two panels of clear Lucite through which a motorist can see traffic lights and generally have better vision. Although the panels are transparent for safety's sake, they are nevertheless said to filter out infra-red sun rays, thus diminishing glare up to 90 per cent during either daytime or nighttime driving.

## Rabbit Stopper

After the home gardener has sprayed his acres with all the insecticides he can find, there is still that friendly little creature, the rabbit, to nibble away at his prize gladiolas. Now B. F. Goodrich Chemical Company, Cleveland 15, has a counter-attacking weapon called "No-Nib'l," a powder which is said to reduce greatly the amount of rabbit damage to agricultural crops, flowers and vegetables. A can costs \$1.00 and until 1951 will be available only by mail order except in Ohio, Indiana and Western Pennsylvania.

## Pantograph Flame Cutting

The Krohn Manufacturing and Supply Company, Centreville, Mich., has developed a contour flame cutter which operates on the principle of pantograph, thereby lessening eye strain because the operator is stationed several feet from the flame and does not have to watch it steadily. The "pantograph torch holder" is said to assure accurate cut patterns, devoid of ragged edges, and is designed for small commer-

cial shops, trade schools, hobbyists and smaller jobs in large plants.

## Suit Shine Shunner

The United States Rubber Company, New York 20, N. Y., has come up with a new drycleaning press cover fabric to reduce the shine on men's suits caused by repeated pressing. The fabric, called "Asbestall," is made of asbestos blended with cotton and nylon. It allows steam to flow freer and faster, thus speeding the drying process and reducing shine.

## Screw-Holder Screw Driver

A screw driver which has a spring clip attached to the shaft to exert pressure against the sides of the head slot and thus hold the screw in place has been devised by Vaco Products Company, 317 E. Ontario St., Chicago 11. The spring clip can be slid back up the shaft and out of the way when not needed but, when extended, will hold a screw while it is being inserted into a deep hole before the threads are reached.

## All-Purpose Belting

A new, all-purpose belting, designed to provide a single textile belting that will handle all elevating and conveying requirements for virtually all types of materials from food to gravel, as well as power transmission work, has been introduced by Victor Balata and Textile Belting Company, 300 W. Hubbard St., Chicago 10. The belting is made from special woven cotton duck impregnated with a Neoprene compound to provide extra strength and durability. It is said to be waterproof and to have a minimum of stretch and shrinkage.

## Concrete Cutter

Martin Fireproofing Corporation, Buffalo, N. Y., has developed a concrete cutter by which a single operator can cut either wet or dry concrete. The cutter is operated by an electric motor.

## Musical Wake-Up Clock

Inventive minds have come up with many novel ways of awaken-

ing folks. One of the latest is a musical alarm clock, developed by Semca Clock Company, Inc., New York, N. Y. At the appointed hour the clock bursts forth with the strains of "Oh, What a Beautiful Morning" and "I Love You Truly."

## Farm-Road Vehicle

A dual-purpose farm and road vehicle, which can be used for a full day's work on the farm — ploughing and the like — and then be driven right into town at night, is the latest automotive development of Crosley Motors, Inc., Cincinnati. The vehicle is designed both for the "city farmer" who must drive to his farm evenings and weekends, and as a supplemental vehicle for large farms. The dual-purpose "FarmRoad" has a 26.5 horsepower engine, six forward and two reverse speeds, and will sell for about \$800 f.o.b. Marion, Ind.

## Pin-Point Lawn Sprinkler

The trouble with sprinkling a lawn the conventional way is that sidewalks and windows usually come in for a wetting-down along with the grass. Now, however, McEngineering Company, 13828 S. Western Ave., Blue Island, Ill., says it has the answer to this problem with a pin-point sprinkler that can sprinkle narrow strips of grass, flower beds, or hedges with such precision that not a drop will fall on walks or the house. It is controlled by a motor-operated tube.

## Anti-Corrosion Wax

S. C. Johnson and Son, Inc., Racine, Wis., has developed a new corrosion resisting wax for the protection of both ferrous and non-ferrous metals. The wax can be applied by dipping, brushing, wiping or spraying.

## "Private Office" Desk

A unique office desk, which is L-shaped and has glass partition extending upward from the outside edges so that, placed against a wall, it forms a semi-private three-sided office, is now being marketed by Korda Industries, 20 W. 46th St., New York 19. The unit, designed after extensive time and motion studies, incorporates built-in filing cabinet, bookcases and shelves within easy reach. Placed end-to-end



ong a wall, the units are said to t space requirements by 30 per nt, yet provide the advantages of ivate offices.

### Board Edge Squeezer

A new squeezing tool that holds por, siding and roof boards with tongue-and-groove edges tightly to- ther for nailing has been intro- duced by R. M. Products, Box 171, Rochester, Mich. Called "Flor- ite," the tool exerts a 140-pound ish on boards with a 10-pound ull on the handle. It is designed so to handle special jobs like ricing joists and deckings.

### Fuel-Oil Guard

American Sand-Banum Company, ew York 20, has developed a fuel- oil homogenizer, called "Sabanol," hich breaks up sludge and avoids oppages that result from water etting into oil-burning equipment. he unit also serves as a soot re- dant and rust inhibitor.

### Extra-Bright Bicycle Headlight

Night bicycling can be made a ot safer, says the Westinghouse lectric Corporation, Pittsburgh 30, a., with a new sealed-beam bike eadlight which the company has eveloped. It throws a 5,000 candle- ower beam for a full block and uns on either three or six flash- ight batteries. The reflector is ermetically sealed to the lense.

### Oxygen Paint Remover

National Cylinder Gas Company, 40 N. Michigan Ave., Chicago 11, as introduced a new oxy-acetylene aint remover burner which is said o do its job quicker and more ffectively because an extra stream f oxygen oxidizes the paint, mak- ng it easier to whisk away.

### Hang-Up Board

The B. B. Butler Manufacturing ompany, 3432 N. Avondale Ave- ue, Chicago 18, has begun market- ng a hang-up board punched with ore than 450 holes into which ecompanying hooks can be quick- y fitted for kitchen utensils, tools e clothes.

### Venetian Blind Cleaner

Alred Industries, 8203 S. Avalon oulevard, Los Angeles 3, has a new enetian blind cleaner with plastic

spring-action tongs fitted with foam rubber pads. The company says the device cleans flat or curved slats in one quick swipe.

### Worms In A Can

Another new product, also canned, comes from the Bios Earth- worm Hatchery, Boulder, Colorado. This can contains live earthworms packed in a mixture of peat moss and soil (for homelike atmosphere). The top of the can is perforated, the bottom has a cover which slips off to let the burrowing worms

pop right into the hands of a wait- ing fisherman. American Can Com- pany produced the "upside-down" can.

### Chlorine Filter

A new filter to remove the odor and taste of chlorine from tap wa- ter has been introduced by Ogden Water Purifier Company, Dallas, Texas. It is made of layers of fi- brous material given alternate posi- tive and negative electrical charges which neutralize the chlorine by ion exchange.



**IS** your plant consuming power that goes to waste? Power loss through inefficient distribution and obsolete electrical lay- out results in high power costs *plus* abnormal deterioration of your entire electrical system. Power waste and subsequent high costs can be eliminated by power factor correction—a Hyre Electric specialty.

With our large staff of electrical engineers and designers, backed by 38 years of experience in industrial and commercial power and lighting, and a thorough knowledge of public utility requirements we offer you the foremost service available for this important work.

- Specialists in engineering and construction on all types of industrial and commercial power and lighting.
- Capacity to handle any size job—from doorbell to complete power plant and system.
- Complete installations for generation, distribution, control and application of electric current.
- Power factor correction, DC-AC conversion, motor application, electrical heating and processing.
- Complete motor repair and inspection service—best equipped, most modern shop in Midwest.
- Athletic field and airport lighting, electronic and instrument aircraft landing systems, radio antennae, traffic signals, street lighting, etc.
- Complete technical service—staff of 10 electrical engineers and designers available for consultation on all industrial and commercial light and power problems.

**HYRE** ELECTRIC CO.  
*Since 1912*





**MOBILE PRINT SHOP** — The print shop goes to the customer when this custom-built Dodge Route-Van, operated by International Printing Equipment Company of Detroit, rolls along the highway. The interior is paneled in mahogany and is furnished with a collapsible writing table, upholstered benches (that unfold into a double bed), and a 2600-pound press. An eight-truck fleet will soon be in operation.

## France: Economic Convalescent

(Continued from page 17)

"Why not?" demanded the tractor enthusiast.

"Because, monsieur, the tractor does not make fertilizer!"

That seemed to settle the matter. However, the ECA man returned next day and said, "But the tractor doesn't eat when it isn't working."

The farmer was immediately sold.

To wring the last gasp of production from a faithful heirloom, many French factory owners patch up antiquated machinery with baling wire rather than buy new equipment. These machines are often outright hazards to workers. In most cases ECA technicians have found that the expense of new machinery would have been defrayed in a short time by the savings in time and efficiency.

### Bad Plant Layout

Recently, however, industrialists have begun to take increasing interest in modern equipment. When pressed for greater production they have complained in many instances that they can do no better until they receive new machines. Sometimes, however, it is a case of inefficient plant layout, rather than outworn machinery.

In one small factory ECA representatives found the only drill press available was in constant use

by men from all sections of the plant. Hundreds of man-hours per year were saved by the simple expedient of moving the drill from one end of the factory to a centrally located position.

### Investment Needed

Naturally, the productivity committee and ECA must demonstrate that it is sometimes desirable to spend money in order to make money. Mobile educational units canvass the rural areas showing the latest agricultural machines and techniques, while industrial units tour the manufacturing districts.

In addition, hundreds of thousands of pamphlets are being distributed each month explaining the idea of productivity and the European Recovery Program. *L'Aide Américain*, a monthly magazine distributed on this "volunteer" basis, already has a subscription list of nearly 200,000, and it is growing at the rate of 400 daily.

One of the most popular ECA publications is "Joe Smith, American Worker." Three hundred and fifty thousand copies have been exhausted and another 150,000 are being printed. The 48-page pamphlet illustrates with photos and statistics the lives led by typical factory workers in America.

A healthy respect for mass production will stir in the mind even the most conservative worker when they read that "Joe Smith can buy a pair of shoes with the wages of six hours and 32 minutes work. The average French laborer pays half a week's wages for the same shoes. Even where French prices are low by U. S. monetary standards, the price for the Frenchman is frequently prohibitive when reckoned in terms of working time. Beefsteak, for example, costs half as much in France, but Joe Smith's opposite number in Paris must work 50 per cent longer to earn enough to buy one.

### Labor Viewpoint

Some resistance to the productivity program comes from French employers and employees who fear specialization. The labor force contains a high percentage of skilled craftsmen who are proud of their crafts. They are reluctant to abandon skills acquired after years of training on a promise that future living standards will be higher. A French carpenter, often building a piece of furniture from raw wood, regards the completed piece as his personal work. Such a craftsman looks askance at assembly lines in Grand Rapids where a worker may handle only an electric saw. Individuality, he feels, is all but lost in America.

Nevertheless, a weighty rebuttal is presented when he observes the modern tools and factories in the United States, follows workers to a glistening swarm of automobiles, and visits modern, comfortable homes.

In the case of management the specialization problem arises in much the same way. Many small French factories have traditionally produced high-profit, low-quality goods. One factory may manufacture typewriters and toys. If demand for typewriters is low and demand for toys high, production of one is cut the other increased. French management regards this as insurance against fluctuating markets. To convince factory owners that it is in their best interest to specialize in one product and take a smaller profit margin on the resulting quantity of goods is not always easy.

France is a nation of 40,000,000 people. There is no great unification



European market comparable to that enjoyed by American producers. A multitude of tariff barriers prevents free flow of goods. Manufacturers fear that high speed production of specialized products might soon dissolve the market for certain commodities in some of these restricted trading areas.

Economists reply that it would be years before French industry could satisfy demands even in their own country. By that time it is hoped, the economic integration of Europe would be well under way. There are a thousand other knotty problems in France's postwar economy. Nevertheless, the picture is steadily brightening. From a state of economic collapse after the war, France has risen to the highest production since 1929—the best pre-war year. In many fields—electricity, petroleum, steel, cement, agricultural machines—she has actually exceeded 1929 figures.

#### Record Wheat Harvest

This season's wheat harvest set a record. Coal production has risen 10 per cent, productivity 16 per cent in the last year. Electricity is at an all-time high of 30,000,000,000 kilowatt hours per year. Heavy industry produced 40 per cent more in 1949 than 1938. Most textiles are being turned out faster than before the war. Since 1946, overall production has increased 40 per cent. The proposed pooling of French and German industries would undoubtedly bring an even sharper rise in production.

Productivity, the new word in the worker's vocabulary, has risen more slowly. The best available figures indicate that productivity is now equal to 1938—the last prewar year, though not a particularly good one for France. However, since the beginning of ECA in 1947, productivity has risen 25 per cent, and is still in a period of "great acceleration."

Despite seemingly endless opposition to a healthy economy the grip of the extremists of Right and Left is being pried loose bit by bit. If a single manufacturer in an industry decides to install modern machines his competitors must follow suit or retire from the field. Thus, over postwar France the hum of modern machinery can be heard in an encouraging crescendo. Each day new industrial noises join the chorus.

## Here, There and Everywhere

(Continued from page 30)

released for the month of April, the latest available, show a credit to the employes of \$8,841.38, or 2.12 cents per hour for each of the 2,600 eligible employes.

• **Uranium Study** — The uranium mining and processing industry, reports the magazine Chemical and Engineering News, is about to be investigated from the viewpoint of cancer hazards to workers and community inhabitants. Those in the Colorado Plateau area who are exposed to radioactive substances will be given medical examinations. Furthermore, mine and mill facilities will be sampled to determine the extent of concentrations of dusts, gases and other potentially toxic materials.

• **Trade Opportunity**—A Brazilian rancher wants to purchase one male and two female buffaloes in the United States, according to the current weekly list of new world trade

leads issued by the Office of International Trade, the Department of Commerce has reported. The rancher, who plans to raise buffaloes for hides and meat, has already acquired a small herd and is also seeking information on how to breed and care for buffaloes to improve the stock.

• **Outsize Party** — The biggest birthday party in many a year was held recently by Armco Steel Corporation in Middletown, Ohio. Estimates of the number of persons attending in celebration of Armco's fiftieth anniversary varied widely, but the crowd was large enough to consume 150,000 hot dogs ("a string of dogs 14 miles long" according to company press agents), three barrels of mustard, 105,000 ice cream bars; 160,000 cold drinks and 20,000 boxes of cracker jack.

• **Taxpayers Use Long Form** — If you've ever wondered how many

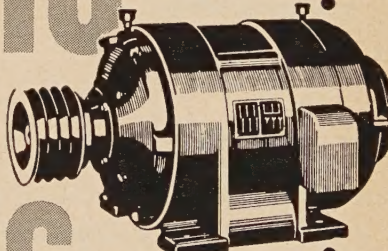
# MOTORS

**OF ALL TYPES  
AND SIZES**

# REPAIRS

**STATOR AND ARMATURE WINDING  
NEW AND RECONDITIONED**

**ALL PHONES: ARMITAGE 6-8300**



ALL WORK  
GUARANTEED

**SIEVERT ELECTRIC CO.**  
INC. Since 1914  
**ELECTRICAL-MECHANICAL  
EQUIPMENT & SERVICE  
FOR ALL INDUSTRIES**  
 1333-51 BAUWANS STREET • CHICAGO 22, ILL.



## GUARANTEED "REBUILT" POWER EQUIPMENT

*Everything you're looking for in . . .* **STOCK**

Chicago Electric has been serving Industry with a complete service as . . .

**ENGINEERS • REBUILDERS • DISTRIBUTORS**

. . . for 40 years. The next time you have a power problem in your plant or shop give us a call — We'll be pleased to SERVE YOU.

**Send For Our Complete Stock Catalog**

PHONE  
TODAY



**CHICAGO Electric Co.**

**FIRST SOURCE  
FOR OVER  
40 YEARS**

1318 W. CERMAK RD.

CANAL 6-2900

CHICAGO 8, ILL.

## Advertisers' Index ★ August, 1950

<b>A</b>		<b>I</b>	
A-Z Letter Service	47	Iron Fireman Manufacturing Co.	1
Advertising Corp., The	33		
Archibald, E. L., Company	35	<b>J</b>	
		James, D. O., Gear Manufacturing Co.	47
<b>B</b>			
Batley & Childs	35	<b>K</b>	
Bock, R. G., Engineers	37	Kedzie Protective Patrol	47
Boynton, A. J., Company	28	Kellogg Switchboard & Supply Co.	27
Buyers' Guide & Industrial Directory	11	Kling Brothers Engineering Works	47
<b>C</b>		<b>L</b>	
Cadillac Glass Company	25	Lien Chemical Company	28
Chicago Association of Commerce and Industry	32	Lorenz, George M., Steel Company	26
Chicago Belting Company	47		
Chicago, Burlington & Quincy Railroad	39	<b>M</b>	
Chicago Electric Company	46	Marsh & McLennan, Inc.	30
Chicago Milwaukee Railroad	29	Mercury Manufacturing Company	8
Chicago Name Plate Company	47	Metropolitan Electrical Supply Co.	47
Chicago Offset Printing Co.	47	Moore, Case, Lyman & Hubbard	36
Chicago Planograph Corp.	47		
Chicago Tribune	B. C.	<b>N</b>	
Chicago Wheel & Mfg. Co.	47	National Pesticide Company	47
Clearing Industrial District	3		
Commonwealth Edison Company	6	<b>P</b>	
		Peabody Coal Company	9
<b>D</b>		Pedersen's Protective Patrol	47
De Leuw, Cather & Co.	38	Peoples Gas, Light & Coke Co.	I. B. C.
Denoyer-Geppert Co.	47	Personnel Laboratory, The	35
Doering, C., & Son, Inc.	38	Pesticide Company	47
R. H. Donnelley	41	Phipps Industrial Land Trust	34
Dri-Gas Corp., The	47		
		<b>S</b>	
<b>E</b>		Sheridan, L. J., & Company	31
Economy Engineering Company	10	Sievert Electric Company	45
Efengee Electrical Supply Company	37	Simplex Window Cleaning Company	35
Electronic Supply Corp.	33	Snow, Fred, Steel Treating Co.	35
Englewood Electrical Supply Co.	23	Steel Supply Company, The	I. F. C.
<b>F</b>		<b>U</b>	
First Federal Savings & Loan	38	United Air Lines	2
Floor Services, Inc.	35		
Fulton Asphalt Company	47	<b>V</b>	
		Van Vliissingen, J. H., & Co.	34
<b>H</b>			
Haines Company, The	35	<b>W</b>	
Hargraves Secret Service	47	Weber, B. E., Company, Inc.	35
Harrington, J. J., & Company	47		
Hyre Electric Company	43		

taxpayers struggle through the long form 1040 in preference to the shorter, tabular computation, Commerce Clearing House has the answer. On the basis of 1947 returns the latest upon which such data is publicly available, one out of every four federal income tax payers filed long returns, 12,000,000 in all. the added labor, however, 1½ million individuals managed to work the figures down to the point where they had no taxable income remaining.

### Civilian Defense

(Continued from page 38)

planning by individual cities has gathered momentum since the Korean crisis arose. Thus, far, only one U. S. city — Washington, D. C. — has undergone a simulated atomic bomb attack. The results of this test, held only a few months ago, are being studied by civilian defense planning bodies in Chicago and Seattle, both of which cities are now scheduled to undergo tests of their ability to cope with a similar attack.

The Chicago test exercise will be held from September 25 to 29. The city's Civil Defense Committee, which includes representatives of city, county and state government agencies, plus representatives of industry and disaster relief agencies, is currently developing written recommendations of planning steps that might be taken by all participating government and private bodies.

This type of planning is still, of course, in the advanced stages. It is still virtually impossible to make more than a broad guess as to likely enemy strategy involving an atomic attack against major U. S. cities. But planning must begin somewhere, and the steps being taken in Chicago and Seattle will at least give local authorities some idea of the colossal defense job they confront.

Furthermore, the planning is aimed at coping with the 1945 type of atomic bomb. The devastating potentialities of still newer weapons may, unfortunately, make even this difficult planning wholly outdated.



# Commerce Classified

# MARKET PLACE

Executives — Office Managers — Personnel Directors — Purchasing Agents — Buyers  
You'll Profit from Reading and Answering these Advertisements

Advertisements in this section: 20c per word—  
one time; 15c per word—12 times. Minimum—  
10 words. Display Classified \$12.50 per inch—one  
line; \$11.00 six times; \$10.00 twelve times; 1/2  
inch \$7.00 one time; \$6.50 six times; \$6.00  
twelve times. Maximum Display Classified Space  
one inch. Copy must be received by 15th of  
previous month to be inserted under proper  
classification. Terms—Payable in advance unless  
credit references are approved. Address Classi-  
fied Department—COMMERCE—One North La-  
salle Street—Chicago, Illinois.

## BELTING

### MODERN LEATHER BELTS AND SHORT CENTER DRIVES

With Automatic Belt Tightening

#### MOTOR BASES

### CHICAGO BELTING COMPANY

"Largest Leather Belt Manufacturers in the West"

125 N. Green St. Chicago 7, Ill.

## DETECTIVE AGENCIES

MARGRAVES SECRET SERVICE, General de-  
fective business transacted everywhere. Offices open  
day and night. Executive offices 145 North Clark  
Street, Chicago, 2, Illinois. Telephone CEntrol  
1-1500. Regional offices, New York City; Miami,  
Florida; Indianapolis, Indiana; Kansas City, Mis-  
souri; Los Angeles, California; San Francisco,  
California.

## ELECTRICAL SUPPLIES

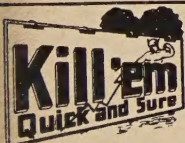


### A Complete Stock of Controls

Call ST 2-4930

**Metropolitan  
Electrical Supply Co.**

## EXTERMINATORS



**DElaware 7-3932**

**EXTERMINATING  
DISINFECTING  
FUMIGATING**

Chicago License No. 1  
Est. 1898

**PESTICIDE CO. 440 N. STATE ST.**

## FLOORS—INDUSTRIAL

### FULTON ASPHALT CO.

Asphalt Mastic Floors  
Acid Proof Mastic Floors  
Industrial Composition Floors

165 W. Wacker Drive, Chgo. 1 RAndolph 6-1760  
1870 80th Anniversary Year 1950

## GEARS

*Since 1888* MAKERS OF EVERY TYPE OF  
**GEAR AND GEAR REDUCER.**

**D. O. JAMES GEAR  
MANUFACTURING CO.**

PHONE  
CAAnal 6-1800

1140 W. MONROE ST.  
CHICAGO

## GRINDING WHEELS

Headquarters Since 1895 for  
**MOUNTED WHEELS and  
SMALL GRINDING WHEELS**

A Shape and Size to Finish every kind of  
Material Faster and Better.

**CHICAGO WHEEL & MFG. CO.**  
1101 W. Monroe St., Dept. C., Chicago 7  
Phone CAAnal 6-8155

## LETTER SERVICE

### A-Z LETTER SERVICE

ESTABLISHED 1918

Mimeographing ★ Multigraphing  
Planographing ★ Multilith  
Addressing ★ Mailing  
Direct Mail Campaigns

Note Change of Address

139 N. CLARK DEarborn 2-1891

## LITHOGRAPHERS—OFFSET

CHICAGO OFFSET PRINTING CO. Fine color  
lithography by the offset process. 610 West Van  
Buren St., Chicago 7, Illinois. Telephone STate  
2-3694.

## MACHINERY

### KLING BROS.

**ENGINEERING WORKS  
GENERAL MACHINISTS**

Medium and Heavy Work—Special Machinery  
Structural Bending—Pattern Shop—Repairs  
1320 N. Kostner Ave., Chicago 51, Ill.  
Telephone Capitl 7-4200

## MAP MOUNTING

MAP MOUNTING — On cloth. On compo. On  
moldings. In spring roller cases. DENOYER-  
GEPPERT COMPANY, 5235 Ravenswood Ave.  
LO.1-9200.

## NAME PLATES

For your urgent needs. Name Plates, Dials, Panels.  
Etched — Engraved — Printed. Chicago Name  
Plate Co., 1831 W. Columbia Av., Chicago 26.  
Ill. AMbassador 2-9447.

## OFFICE MACHINES & EQUIPMENT

Dictaphone transcribing and shaving machines.  
New A. E. electronic dictating machine. All for  
\$200.00. THE DRI-GAS CORPORATION, 343  
S. Dearborn St. HA. 7-8951. — Lindahl.

## PLANOGRAPHING

PHONE today Monroe 6-9721 for reasonable prices  
on planograph printing. CHICAGO PLANO-  
GRAPH CORPORATION, 1220 W. Van Buren  
St., Chicago, Illinois.

## REAL ESTATE—INDUSTRIAL

### Industrial Real Estate

**J. J. HARRINGTON & CO.**

Since 1907

7 S. Dearborn St. • Chicago 3  
Financial 6-1322

## WATCHMEN

### Pedersen's Protective Patrol

24 Hours Service—City-Wide & Suburban  
Service

Uniformed watchmen—Day & Nights by the  
week or month—Special Sanitary Service  
with permanent jobs.

Central Office—SACramento 2-4108—4109  
North Side Office—TUxedo 9-6670  
3242 W. Roosevelt Road Chicago 24

### UNIFORMED GUARDS For Factories, Warehouses, Etc.

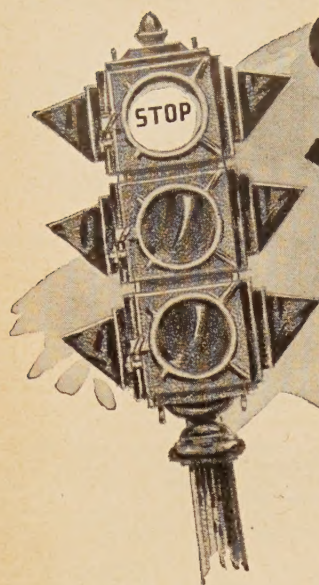
Licensed and Bonded Under State of Ill. Established 1919  
CARS EQUIPPED WITH TWO WAY RADIO

### KEDZIE PROTECTIVE PATROL

301 No. Kedzie Ave. CHICAGO 12  
Phone Day and Night—KEdzie 3-5250

*Say You Saw It In*  
**COMMERCE MAGAZINE—Thanks**





# STOP ME-IF—

"You're charged with throwing your mother-in-law out of the window. Guilty or not guilty?"

"Guilty, your honor. I did it without thinking."

"That's no excuse—you might have hit somebody on the head."

Mrs.: "Why do you go out on the front porch when I sing? Don't you like my singing?"

Mr.: "It isn't that. I don't want the neighbors to think I am beating you."

"Brothers," said the colored preacher, "The subject of mah sermon today is liars. How many in dis congregation have read the 69th chapter of Matthew?" Nearly every hand went up.

"You is de people ah wants to preach to," the reverend said, "Dere is no such chapter."

The youth was leaving for his first class at flying school, and his mother was bubbling with understandable concern. "Harold," she advised, "remember what I told you. Be careful. Fly low and slow."

Said the lady, shaking hands with the preacher after the service: "Wonderful sermon! Everything you said applies to somebody or other I know."

Down south, a colored man with a badly slashed face entered a doctor's office.

"Hello, Tom," the doctor greeted him. "Got cut up again?"

"Yassuh, I done got carved with a razor."

"Why don't you keep out of bad company, Tom?"

"I'd like to Doc, but I ain't got enough money to get me a divorce."

A great marksman was passing through a small town, and everywhere he saw evidences of amazing shooting. On trees, on walls, on fences, and on barns were numberless bulls' eyes with the bullet holes in the exact center. He asked to meet the one responsible for this great marksmanship.

The man turned out to be the town idiot.

"This is the most wonderful marksmanship I have ever seen," he exclaimed. "How in the world do you do it?"

"Easy," replied the simpleton. "I shoot first and draw the circles afterward."

Old Lady: "Little boy, why aren't you in school instead of going to the movies?"

Little Boy: "Heck, lady, I got the measles."

A sightseer was just emerging from a cave. "What's the average tip you receive from each person you take through this cave?" he asked confidentially of the native guide.

"The average tip, boss, thankee, is a dollar."

This seemed a little high for the short time it took to go through, but not wanting to be ungenerous, the sightseer produced a dollar bill. "Thankee, boss, thankee kindly! You are the only gentleman that has reached the average in my whole experience."

A well-known lawyer was always lecturing his office boy—whether he needed it or not. One day he chanced to hear the following conversation between the boy and the one employed next door.

"How much does he pay you?" asked the latter.

"I get \$2,500 a year," replied the office boy—"25 a week in cash and the rest in legal advice."

"So you are 100 years old," said young reporter to the centenarian. "How have you managed to live so long?"

"Well, son," answered the aged man, "I got married when I was 21 and my missus and I made an agreement. I decided that, if we had arguments, the loser would take a long walk to get out of the house. And I suppose I have benefited most by 79 years of fresh air."

She had had a very trying day when her small son, who had been playing in the yard came in with his pants torn, she snapped—

"You go right in, take off your pants and mend them!"

Sometime later she went to see how he was getting along. The torn pants were lying on a chair in the kitchen unmended. The door to the basement, usually closed, was open, so she called down—

"Are you running around down there with your pants off?"

"No, madam," came an indignant reply. "I'm reading the gas meter."

A father was scolding his six-year-old son for having told an extra big fib. "I never told lies when I was your age," said sadly.

The boy, after a moment, asked brightly: "How old were you when you started popping?"

One night an eminent alienist found himself standing at the wrong end of a large pistol. He was shocked to recognize the thug who was holding him up.

"Look here!" he protested. "Don't you know me? I'm your benefactor. Didn't you recall I once saved you from the electric chair by proving you were crazy?"

The thug laughed heartily. "Sure, I remember you! And ain't holding up your benefactor a crazy thing to do?"

Officer—"Is that your car over there, Jones?" "Well, officer, since you ask, considering the fact that I still have no payments to make, owe three repairs and two new tires, I really don't think it is."

